

NJDOT MAINTENANCE YARD - FLEMINGTON  
ROUTE 31  
FLEMINGTON BOROUGH/HUNTERDON COUNTY  
NEW JERSEY  
EPA # NJD980529473

The NJDOT Maintenance Yard is a 3.8 acre facility located on Route 31 in Flemington Borough, Hunterdon County. The site is adjacent ~~to~~ the Central Railroad of New Jersey and the Flemington Borough Memorial Park. The property is presently owned by the state of New Jersey and is partially located in Flemington Borough (Block 39, Lot 11) and Raritan Township (Block 29, Lot 2).

The Standard Oil Company (Esso) previously owned and operated a "Bulk" or holding station for gasoline and kerosene from 1928 to 1958. At that time, Esso owned a 4.27 acre parcel which contained four (4) 10,000 gallon above ground storage tanks. In 1958, the NJDOT began negotiating the purchase of the land and specified that all tanks and equipment be removed from the site by Esso. In the process of removing the tanks, Esso cleaned out each tank and a lead sludge precipitate was collected. It was subsequently buried on site in a 90 x 180 foot area approximately 420' west of Route 31, 28 feet south east of the South Branch of R.R. Tracks. In 1959 NJDOT purchased the land and removed the lead sludge to the point where the soil was visually clean. The remainder of the soil was not determined to be clean by analytical methods.

In 1980 sampling and analysis of an on-site well, a public well (150 feet away) and a private well (500 feet away) by Q.C. Inc. revealed lead below detectable limits in all samples. Also a 4-18-80 site inspection by the NJDEP revealed no visible evidence of lead contamination.

The recommendations for this site are that no further action be taken at this time. This site can be designated "clean" by a post - remedial soil sampling to determine through analytical methods that no contamination exists. Although a post - cleanup soil sampling episode was never conducted, the probability of residual lead contamination is low. The lead sludge contained tetraethyl lead which is virtually insoluble in water, thus the migration of lead contaminants between the time of dumping and clean-up is highly remote. Additionally, various volatile organic compounds (Ex. benzene, toluene) may also have been in the sludge, however, they would have volatilized in the 29 years since the time of disposal.

Hours worked: 30 hours

Submitted by:

Frank Faranca, HSMS IV  
MSCA Project

FF:mz

249194





# Preliminary Assessment

NJDOT Maintenance Yard - Flemington  
Route 31  
Flemington Borough/Hunterdon County  
New Jersey

EPA #NJDO98529473



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
NJ D980529473

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)  
NJDOT Maintenance Yard - Flemington

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER  
Route 31

03 CITY  
Flemington Borough

04 STATE 05 ZIP CODE 06 COUNTY 07 COUNTY CODE 08 CONG DIST  
NJ 08822 Hunterdon 10

09 COORDINATES LATITUDE LONGITUDE  
40 30 25 74 53 27.5

Block 39, Lot 11 Flemington Boro 3.8 Acres  
Block 29, Lot 2 Raritan Twp.

10 DIRECTIONS TO SITE (Starting from nearest public road)  
From Trenton, take Route 31 (Pennington Avenue) North to Flemington. Site is on the left before the railroad tracks.

III. RESPONSIBLE PARTIES

01 OWNER (if known)  
New Jersey Dept. of Transportation

02 STREET (Business, mailing, residential)  
1035 Parkway Avenue

03 CITY  
Trenton

04 STATE 05 ZIP CODE 06 TELEPHONE NUMBER  
NJ 08625 ( )

07 OPERATOR (if known and different from owner)  
08 STREET (Business, mailing, residential)

09 CITY  
10 STATE 11 ZIP CODE 12 TELEPHONE NUMBER  
( )

13 TYPE OF OWNERSHIP (Check one)  
☐ A. PRIVATE ☐ B. FEDERAL: (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL  
☐ F. OTHER: (Specify) ☐ G. UNKNOWN

14 OTHER OPERATOR NOTIFICATION ON FILE (Check all that apply)  
☐ A. RCRA 3001 DATE RECEIVED: MONTH DAY YEAR ☒ B. UNCONTROLLED WASTE SITE (RCRA 102 G) DATE RECEIVED: 5 1 81 ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION  
☒ YES DATE 4 18 80  
☐ NO MONTH DAY YEAR

BY (Check all that apply)  
☐ A. EPA ☐ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR  
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: (Specify)

CONTRACTOR NAME(S):

02 SITE STATUS (Check one)  
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION  
ESSO 1928 1958 ☐ UNKNOWN  
BEGINNING YEAR ENDING YEAR

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED  
An unknown amount of lead sludge was allegedly buried by Standard Oil Company (ESSO) over a thirty year period. The lead sludge was removed from four (4) 10,000 gallon above ground tanks that were on-site.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION  
A potential for ground water, drinking water and soil contamination exists because post clean-up sampling was never undertaken to confirm the removal of all contaminated soil.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)  
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☒ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed; complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT  
Robert Britton

02 OF (Agency/Organization)  
NJDOT/Bureau of Plant Engineering

03 TELEPHONE NUMBER  
609 530-3688

04 PERSON RESPONSIBLE FOR ASSESSMENT  
Frank Faranca, HSMS IV

05 AGENCY  
NJDEP

06 ORGANIZATION  
DHWM/BPA

07 TELEPHONE NUMBER  
609 633-2219

08 DATE  
04 29 87  
MONTH DAY YEAR



01 STATE NJ	02 SITE NUMBER D980529473
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## 01 PHYSICAL STATES (CHECK ONE) (SEE 2007)

- 02 WASTE QUANTITY AT SITE**  
(Measure of waste materials that are transported)

TONS

**CUBIC YARDS** Unknown

NO. OF DRUMS

## 03 WASTE CHARACTERISTICS (Check all that apply)

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> A. TOXIC       | <input type="checkbox"/> E. SOLUBLE    | <input type="checkbox"/> I. HIGHLY VOLATILE |
| <input type="checkbox"/> B. CORROSIVE   | <input type="checkbox"/> F. INFECTIOUS | <input type="checkbox"/> J. EXPLOSIVE       |
| <input type="checkbox"/> C. RADIOACTIVE | <input type="checkbox"/> G. FLAMMABLE  | <input type="checkbox"/> K. REACTIVE        |
| <input type="checkbox"/> D. PERSISTENT  | <input type="checkbox"/> H. IGNITABLE  | <input type="checkbox"/> L. INCOMPATIBLE    |
|   |  | <input type="checkbox"/> M. NOT APPLICABLE  |

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	Unknown	Unknown	Lead sludge which precipitated
OLW	OILY WASTE			from four gasoline holding
SOL	SOLVENTS			tanks was buried on the site
PSO	PESTICIDES			prior to NJDOT's purchase.
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

## IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

[illegible]

#### V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

## VI. SOURCES OF INFORMATION (Cite backing references, e.g., state laws, scientific analysis reports)

EPA FORM 2070-12 (7-81)



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE NJ 02 SITE NUMBER D980529473

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

A potential for ground water contamination exists. Lead sludge was buried in 1958 by ESSO at their bulk holding facility on Route 31. D.O.T. removed the waste in late 1958.

Attachments A, E, F

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

A potential exists for surface water contamination by ground water discharge to surface swails leading to Bushkill Brook.

Attachment 1

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

No potential exists for air contamination.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

No potential exists for fire/explosive conditions.

01 ☐ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

No potential exists for direct contact. The D.O.T. removed the waste in late 1958 for disposal off-site. The entire site is fenced to prevent unauthorized site access.

Attachments A, H

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 AREA POTENTIALLY AFFECTED: \_\_\_\_\_ (ACRES) 04 NARRATIVE DESCRIPTION

A potential exists for soil contamination. Post clean-up sampling of soil was not conducted to determine if any residual contamination exists.

Attachment F2

01 ☒ G. DRINKING WATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

A potential exists for drinking water contamination. There are several residential drinking wells within the area which may have lead contamination.

Attachment #3

01 ☒ H. WORKER EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 WORKERS POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

A potential exists for worker exposure/injury. Residual contamination of lead sludge in the soil may harm D.O.T. employees.

01 ☒ I. POPULATION EXPOSURE/INJURY 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

A potential for population exposure may occur through contamination of domestic wells located in the area.

Attachment #3



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION  
01 STATE NJ 02 SITE NUMBER D980529473

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION  
Potential damage to flora may occur; however, a 1980 site inspection revealed no visible evidence of sludge or stressed vegetation.

Attachments A; F4

01 ☒ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION (Include number(s) of species)  
The lead sludge deposited on site is highly toxic if associated with tetraethyl lead. However, this compound is relatively water insoluble and would not have migrated far from the site.

ATTACHMENT I

01 ☒ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION  
A potential for contamination of the food chain may occur because lead is bio-accumulative.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES  
(Spills, leaks, standing liquids, missing drums)  
03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_  
04 NARRATIVE DESCRIPTION  
ESSO Corporation buried lead sludge from five (5) gasoline holding tanks on-site. Waste was later removed by NJDOT.

Attachments A, E, F

01 ☒ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION  
Damage to off-site property may potentially occur through domestic well contamination.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION  
A potential for storm sewer contamination does not exist.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION  
The dumping of sludge waste by ESSO Corporation occurred prior to any state and federal regulations prohibiting such activity.

Attachment A, E, F

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS  
Various volatile organic compounds (ex. benzene, toluene) may also have been in the sludge. The sludge originated from four (4) bulk gasoline tanks (10,000 gal. ea.) located on site.

III. TOTAL POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_

IV. COMMENTS

The 7-10-80 newspaper article in the Hunterdon County Democrat is the only piece of information that mentions a site clean-up did occur.

V. SOURCES OF INFORMATION (See listing references, e.g., State files, laboratory reports, etc.)

See reference sheet for sources of information.

NJDOT MAINTENANCE YARD - FLEMINGTON  
FLEMINGTON BOROUGH/HUNTERDON COUNTY  
NEW JERSEY

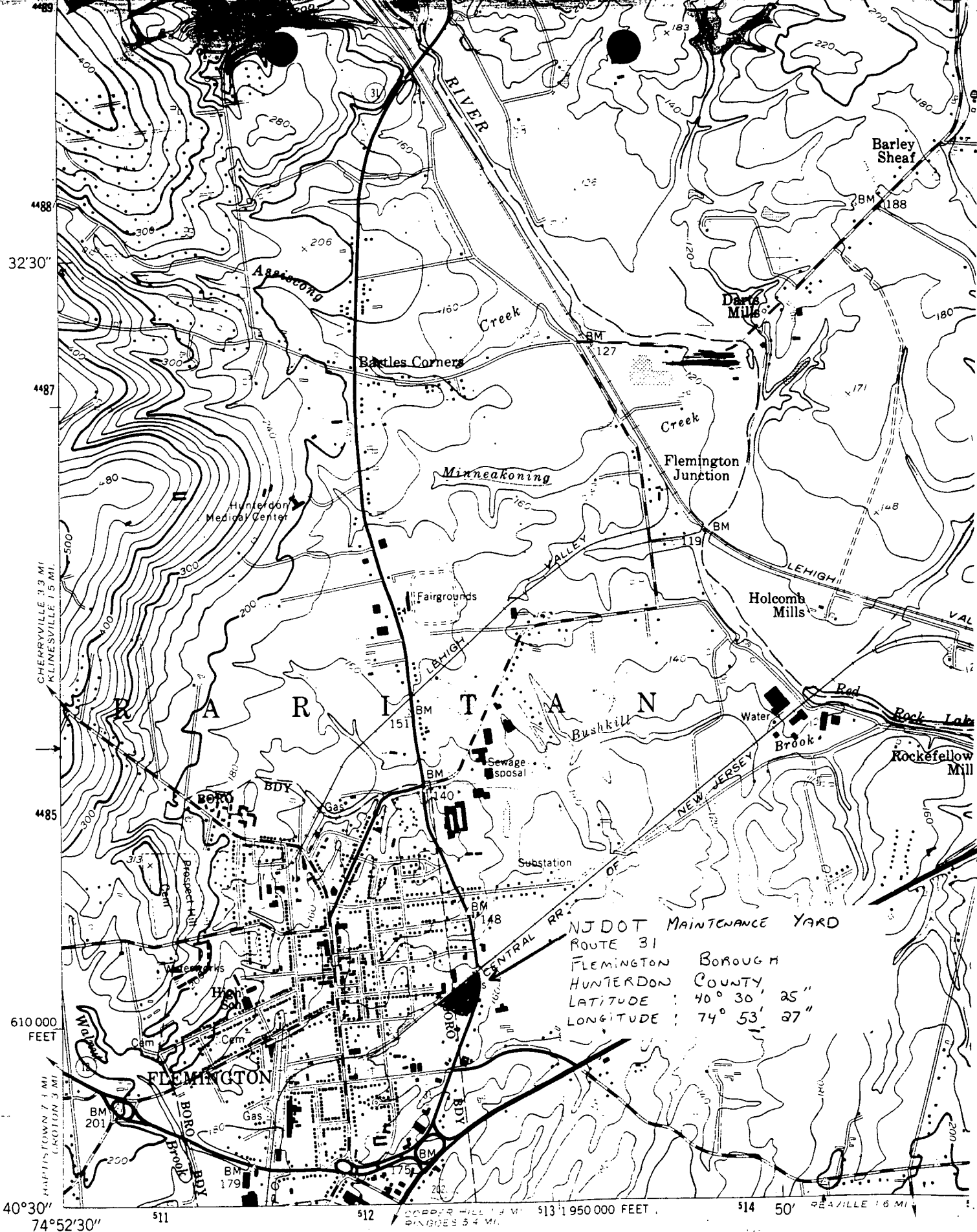
REFERENCE:

I. MAPS

1. USGS TOPOGRAPHIC MAP (FLEMINGTON QUADRANGLE)
2. STATE ATLAS MAP (SHEET 24)
3. STATE ATLAS WATER SUPPLY MAP (SHEET 24)
4. COUNTY MAP
5. STATE MAP
6. FLEMINGTON BOROUGH TAX MAP
7. FLEMINGTON BOROUGH PUBLIC WELL MAP

II. ATTACHMENTS

- |    |   |         |
|----|---|---------|
| A. | HUNTERDON COUNTY DEMOCRAT NEWSPAPER                             | 7-10-80 |
| B. | Q.C. INC. - ANALYSIS OF ON SITE WELL                            | 7-17-80 |
| C. | Q.C. INC. - ANALYSIS OF PUBLIC WELL                             | 7-10-80 |
| D. | Q.C. INC. - ANALYSIS OF PUBLIC WELL                             | 1-8-87  |
| E. | E.P.A. - PRELIMINARY ASSESSMENT                                 | 2-7-80  |
| F. | E.P.A. - SITE INSPECTION REPORT                                 | 4-18-80 |
| G. | NJDEP - PUBLIC COMMUNITY WATER SUPPLY                           | 12-4-86 |
| H. | MEMO TO FILE FROM FRANK FARANCA                                 | 4-27-87 |
| I. | THE MERCK INDEX   | 1976    |
| J. | DANGEROUS PROPERTIES OF INDUSTRIAL<br>MATERIALS - N. IRVING SAX |         |
| K. | NJDEP - HAZARDOUS WASTE INVESTIGATION                           | 9-9-82  |



MAP  
#1

(STOCKTON)  
6064 IV NW

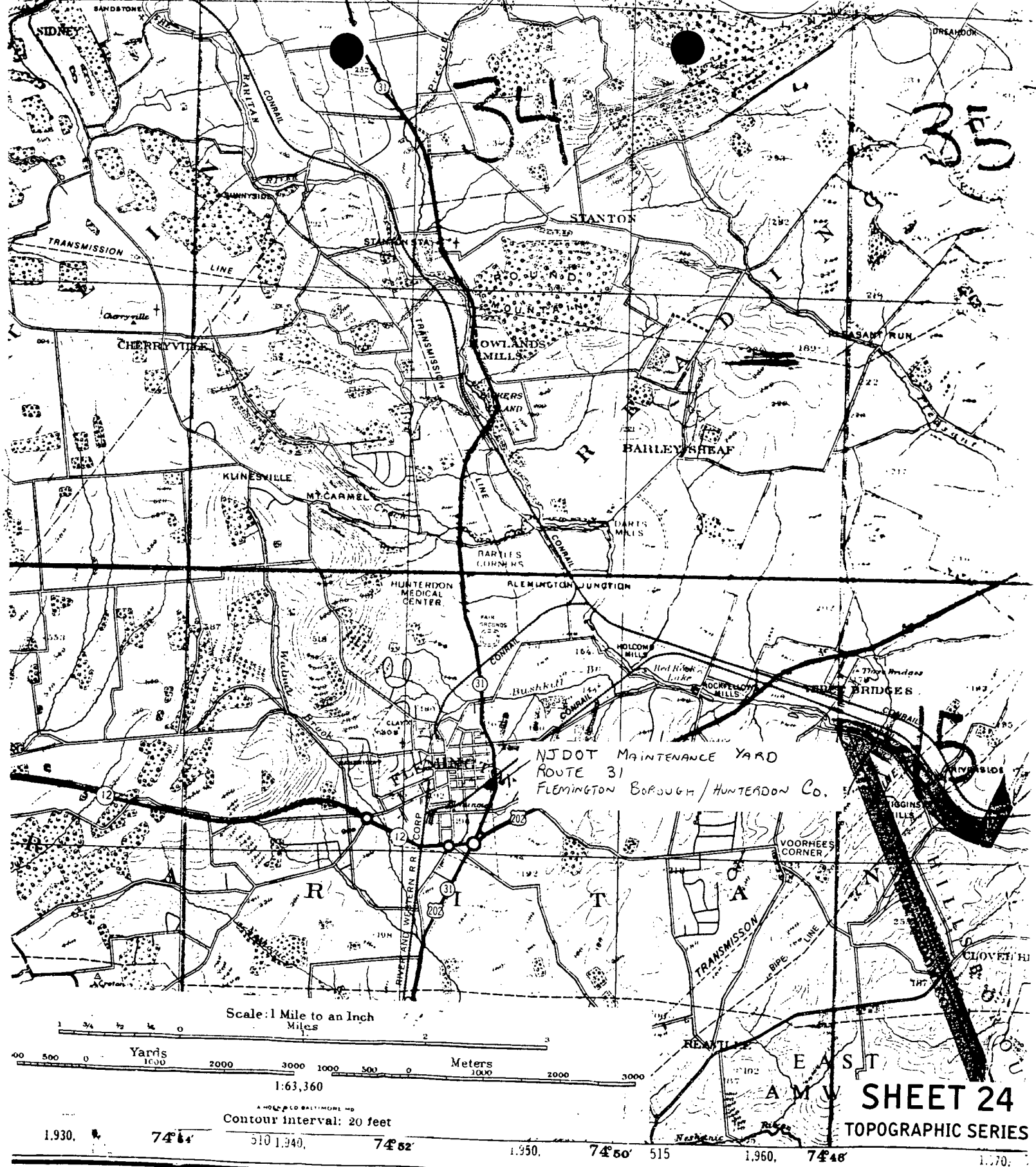
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

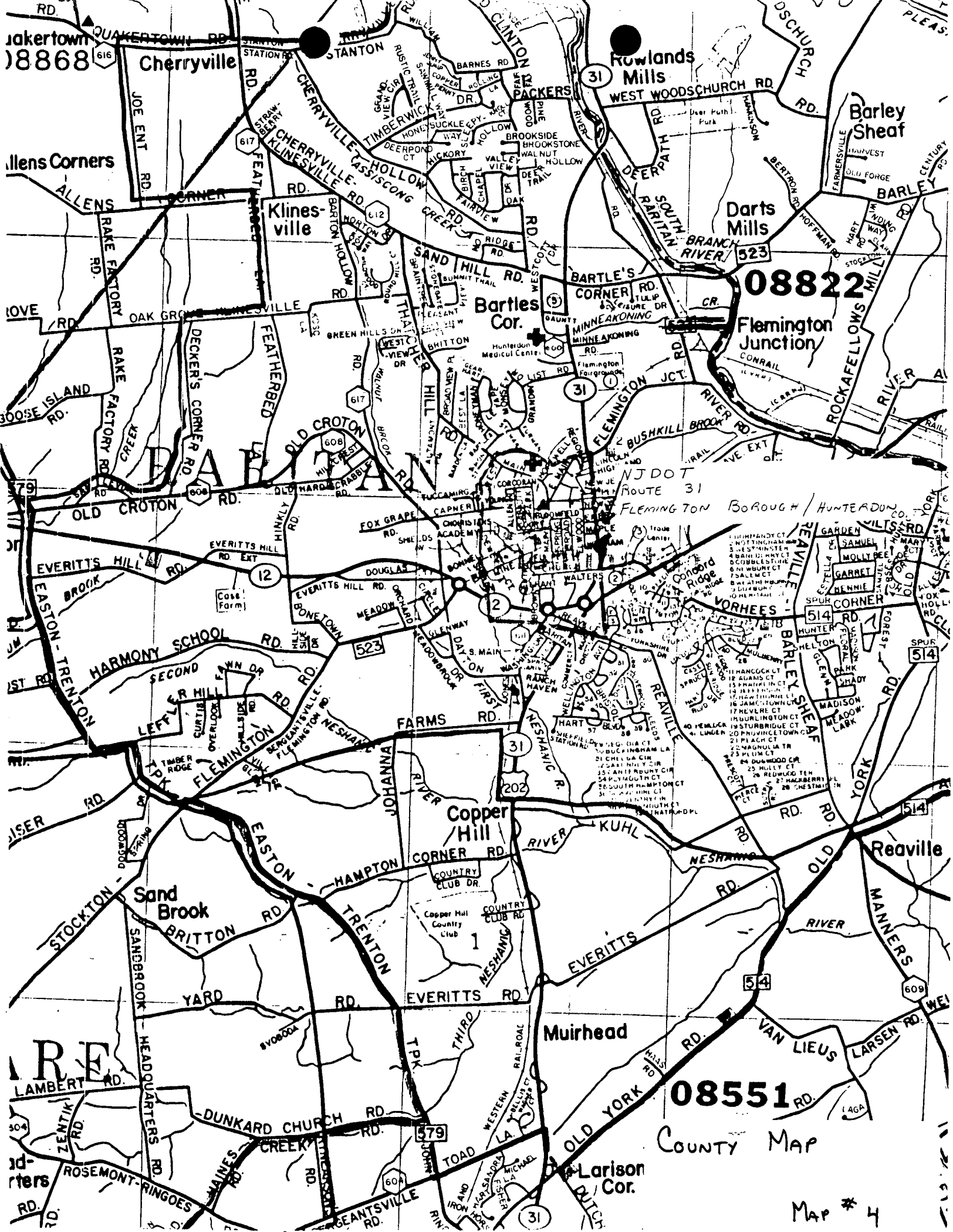
FLEMINGTON, N. J.  
N4030-W7445/7.5

1954  
PHOTOREVISED 1970  
AMS 6065 III SE-SERIES V822







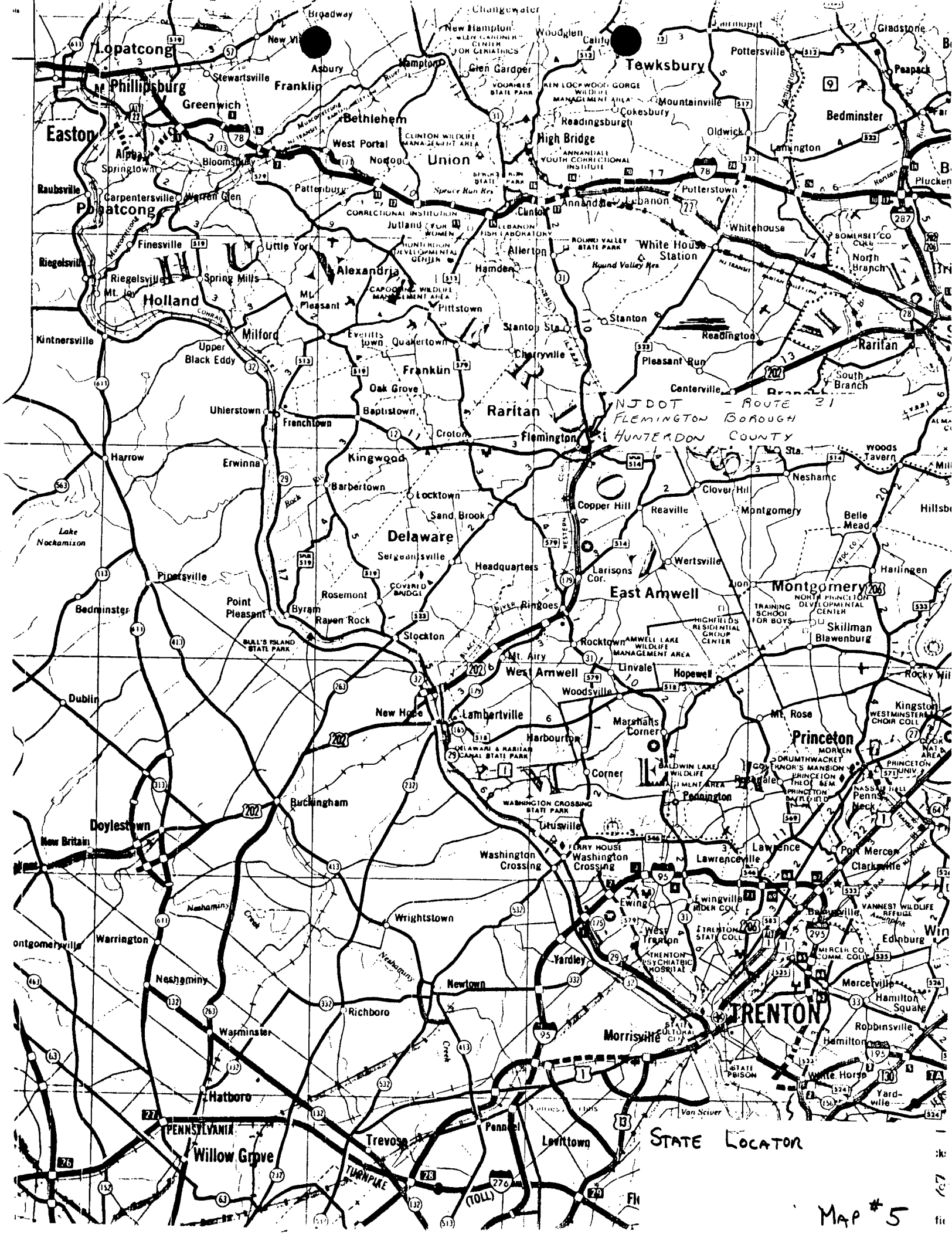


08822

08551

COUNTY MAP

Map # 4



RARITAN TWP.

~~FLEMINGTON~~  
~~BOROUGH~~

**BLOCK LINE**

FILED

$$\frac{100}{1.3 \text{ Ac. } \pm}$$

CL. I

529.54'

FLEMINGTON  
BORO  
6.54 Ac. ±  
10  
(Exempted)

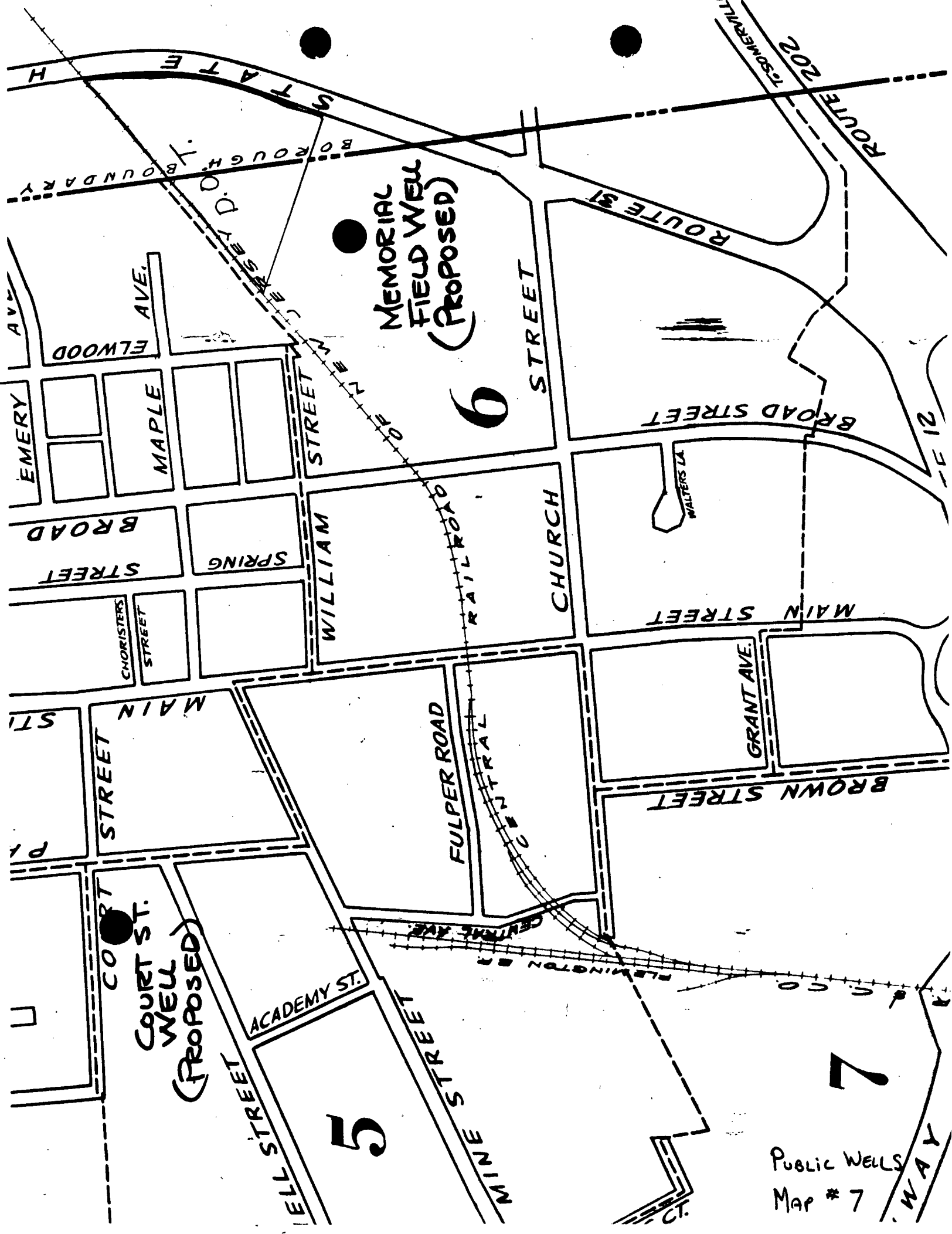
Tax  
MAP

39

ROUTE

1951

MAP  
#6



MEMORIAL  
FIELD WELL  
(PROPOSED)

6

COURT ST.  
WELL  
(PROPOSED)

5

7

PUBLIC WELLS  
Map # 7

Hunterdon County Democrat  
Rocky, Palencia, Nick Binder 7-10-80  
Groundwater May 1. Potable Water

# Wells To Be Tested For Traces Of Lead

By Jean Hays

Tests for lead are being made today in one Flemington Borough municipal water well and two private wells just over the boundary line in Raritan Township. Authorities are concerned because concentrations of lead in the body can be poisonous.

The wells are all located close to Route 31 near the Pioneers' football field and the Black River and Western railroad tracks where the Exxon Corp. buried lead sludge when it sold its property to the state Department of Transportation (DOT) in 1959. The department uses the area for storage of vehicles and materials for highway maintenance.

DOT moved the sludge in 1959, but authorities are concerned that traces may remain.

According to Richard Stothoff, the borough's water superintendent, the water from the municipal well being checked could "go to all people in Flemington since it feeds the entire system."

If high concentrations of lead are found in today's check, the state Department of Environmental Protection (DEP) will do further water and soil tests in the vicinity — especially in the seven or eight commercial and residential wells nearby.

"We simply won't know anything positive," said Stothoff, "until the water test results come back next week." He said the state requires that there be no more than .05 parts of lead per million parts of water.

According to records at the bureau of plant engineering and operation at DOT, Exxon had a "bulk" or holding station on Route 31 from 1928 to 1958. There were five tanks at the site that held gasoline. When, in 1958, DOT began negotiating the purchase of the land, it specified that all equipment and tanks be taken away.

## Cleaned Out Tanks

"We figure that at that time," said Robert Britton, who is the chief of DOT's plant engineering office, "Exxon must have cleaned out those holding tanks. The lead was partly settled in the bottom. It was, according to a sketched map we have from Exxon, simply buried behind their building."

In February of 1959, DOT asked Exxon to address the problem of the sludge. The reply, from Exxon's G. F. Starkweather, said that DOT should dig up the stuff and redeposit it elsewhere.

"At present," said Starkweather, in a letter to DOT early in 1959, "the only acceptable method of disposing of such toxic leaded material is to bury it. We would recommend that it be transferred to a more suitable area. The area behind the rear fence in the open field might offer a possible solution."

According to Britton, the sludge was removed later that year.

The whole project was done and financed, he said, by DOT with technical advice from the Ethyl Corp. of New York. Ethyl is a manufacturer of tetraethyl lead, which is added to gasoline to boost octane ratings. Britton said he was not sure how much sludge was removed or where it was taken.

According to Ken Smith of the Exxon Corp., information on such an old site is limited. He said that these days, lead sludge is turned over to "private contractors who are required to dispose of the material in accordance with safe and approved methods set down by the state and federal governments."

Borough began looking into leasing or buying part of the property for the little lead field, DEP was called in to do a double check so that DOT could authorize use of the land with a clear conscience. He said that was done in spite of the thorough clean up DOT did 21 years ago.

A visual check of the site was made three months ago, according to Wayne Halletts from the toxic substances investigative unit at DEP.

"The check," said Halletts, "revealed no signs of dying vegetation, residue or chemical leachate and there were no noticeable caustic odors."

The area has been regraded since the lead was dumped and Halletts said that visible effects in a case such as this would be rare.

"I am recommending," he said, "soil samples and I would also like to see a ground water monitoring well go in there. Also, there is a special lead study being conducted by DEP of the state's old junk yards—I'd like to see this site included."

Robert Reed, also from DEP's toxics investigative team, said that whether any lead traveled from where it was dumped depends on the site. The rock formation, the solubility of the lead and the nature of the aquifer all make a difference, he said, in the ability of the lead to leach into ground water.

"Until we know whether the lead has contaminated nearby water supplies," said Reed, "we will hold off on the soil samples and a monitoring well. This is an old site that hasn't caused any trouble before. Once we know how much lead, if any, is there, we can place the site on a higher priority."

## Poisoning Rare

According to Dr. Glenn Lambert, who is part of the Hunterdon Medical Center's poison control team, lead poisoning is a very rare problem in this county. He said that excessive automobile traffic is one of the biggest causes of lead problems, due to lead additives in gas.

"Around 10 to 35 micrograms of lead per 100 milliliters of whole blood is considered normal," said Dr. Lambert. "Over 60 is when medical treatment is usually needed."

According to Stothoff, the borough well being tested today was drilled three years ago, strictly for the South Hunterdon Little League. He said the well turned out to be a 150-gallon-per-minute producer and was redesignated for municipal use. All Flemington wells, he said, are tested weekly for detergents, nitrates, bacteria, iron, suspended solids, color, hardness and other things — but not lead. And the private wells in the township are checked only at the discretion of their owners.

According to Stothoff, testing for lead is not normally done unless there is reason to suspect concentrations. He said that the test is relatively simple and inexpensive; it would cost about \$20 to have a private company test for lead. The borough, he said, has its water tested by Quality Control of Southampton, Pa., but there are a number of other companies in the area that do such testing.

"Really," said Stothoff, "I'm not that surprised about this. We're talking about over 20 years ago; back then, it was just standard procedure to bury stuff like this. If you were to look at most every service station, I bet you would find the very same



(215) 673-4900  
355-3900

## QUALITY CONTROL LABORATORY DIVISION

1205 Industrial Highway, Southampton, PA 18966

E. W. Cook, V.M.D.  
A. F. Zimmermann

New Jersey Dept. of Transportation  
999 Parkway Ave.  
Fernwood Service Street  
Trenton, N.J. 08625

### CHEMICAL WATER ANALYSIS REPORT

date sampled 7/17/80

date tested 7/18/80

date reported 8/5/80

sampled by CFB

frequency

copies to S. Stothoff

(QC #6661)

### ANALYSIS OF ON-SITE WELL

pH	mg/l
Total Hardness, as CaCO <sub>3</sub>	mg/l
Calcium Hardness, as CaCO <sub>3</sub>	mg/l
P Alkalinity	mg/l
M Alkalinity	mg/l
Acidity	mg/l
Total Dissolved Solids	mg/l
Total Suspended Solids	mg/l
Total Solids	mg/l
Volatile Residue	mg/l
Fixed Residue	mg/l
Settleable Solids	ml/l
Color	units
Conductivity	mmhos
Odor, Threshold Number	
Turbidity	units
Chloride	mg/l
Cyanide	mg/l
Detergent (Syndets MBAS)	mg/l
Fluoride	mg/l
Oil and Grease	mg/l
Phenols	mg/l
Phosphate, Ortho, as P	mg/l
Phosphate, Total, as P	mg/l
Phosphorus, Total	mg/l
Silica	mg/l
Sulfate	mg/l
Sulfide	mg/l
Sulfite	mg/l

Ammonia, as N	mg/l
Kjeldahl Nitrogen	mg/l
Nitrate, as N	mg/l
Nitrite, as N	mg/l
Organic Nitrogen	mg/l
Chlorine Demand	mg/l
Dissolved Oxygen	mg/l
Biochemical Oxygen Demand	mg/l
Chemical Oxygen Demand	mg/l
Total Organic Carbon	mg/l
Aluminum	mg/l
Arsenic	mg/l
Barium	mg/l
Cadmium	mg/l
Calcium	mg/l
Chromium, Hexavalent	mg/l
Chromium, Total	mg/l
Copper	mg/l
Iron	mg/l
Lead	mg/l
Magnesium	mg/l
Manganese	mg/l
Mercury	mg/l
Nickel	mg/l
Potassium	mg/l
Selenium	mg/l
Silver	mg/l
Sodium	mg/l
Tin	mg/l
Zinc	mg/l

Q C INC.

lei





# QUALITY CONTROL LABORATORY

1205 Industrial Highway, P.O. Box 514, Southampton, PA 18966

RECEIVED

JUL 23 1980

Flemington Water Dept.  
38 Park Ave.  
Flemington, New Jersey 08822

DEPT. OF ENVIRONMENTAL PROTECTION  
BUREAU OF POTABLE WATER

## BACTERIOLOGICAL WATER ANALYSIS REPORT

date sampled 7-10-80  
date tested 7-11-80  
date reported 7-24-80  
sampled by CFB  
frequency weekly  
copies to Hunterdon Co.  
R. Stothoff  
N.J. DEP

SAMPLE Water Samples	Standard Plate Count per ml	Total Coliform Count per 100 ml MPN	Fecal Coliform Count per 100 ml MPN	Iron	Lead		
(QC #6493) Memorial Well				<.01	<.001		
(QC #6494) Sam Stothoff Well				<.01	<.001		
EMORY AVE. 21							

Q C INC.

edj

Albert F. Zimmermann

C



1205 INDUSTRIAL HIGHWAY • P.O. BOX 514  
SOUTHAMPTON, PA. 18966 • 215/355-3900

ACCOUNT NO: W00219

FLEMINGTON WATER DEPT.  
38 PARK AVENUE  
FLEMINGTON, NJ

08822

REPORT NUMBER : 87001360  
REPORT DATE : 01/14/87

SAMPLE DATE : 01/08/87  
SAMPLE TIME : 04:20PM  
SAMPLE TEMP : NA F  
SAMPLED BY : JC  
COLLECTED BY : JC  
ANALYSIS DATE : 01/09/87  
P.O. NUMBER : VOUCHER  
PWS-ID NUMBER : 1009001

TEST NUMBER	TEST NAME	UNIT MEASURE
W0214-MCL	LEAD	MG/L

SAMPLE/CONTAINER

WATER SAMPLE-MEMORIAL PARK WELL HOUSE  
392476 SINK

<0.005

SAMPLE# COMMENT NOTE: EACH SAMPLE ABOVE IS GIVEN A UNIQUE ID# (PRINTED JUST BELOW THE SAMPLE)

SAMPLED BY JOAN CUMMINGS

392476 QC#55322

392476 ALL TESTING IS CONDUCTED IN ACCORDANCE WITH E.P.A. METHODOLOGY.

NO DETECTABLE CONCENTRATION OF LEAD WAS FOUND IN YOUR WATER SUPPLY. THE EPA  
RECOMMENDED MAXIMUM LEVEL IS 0.05 PPM.

*Allen D. Schoptach*  
Allen D. Schoptach, President

> - Greater Than

< - Less Than

NOTE: This form is completed for each potential hazardous waste site to help set priorities for site inspection. The information submitted on this form is based on available records and may be updated on subsequent forms as a result of additional inquiries and on-site inspections.

GENERAL INSTRUCTIONS: Complete Sections I and III through X as completely as possible before Section II (Preliminary Assessment). File this form in the Regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW; Washington, DC 20460.

### I. SITE IDENTIFICATION

A. SITE NAME Flemmington Dot Yard		B. STREET (or other identifier) Rt 31 North	
C. CITY Flemmington	D. STATE N.J.	E. ZIP CODE	F. COUNTY NAME Hunterdon
G. OWNER/OPERATOR (if known) 1. NAME N.J. Dept. of Transportation (State of N.J.)		2. TELEPHONE NUMBER	
H. TYPE OF OWNERSHIP <input type="checkbox"/> 1. FEDERAL <input checked="" type="checkbox"/> 2. STATE <input type="checkbox"/> 3. COUNTY <input type="checkbox"/> 4. MUNICIPAL <input type="checkbox"/> 5. PRIVATE <input type="checkbox"/> 6. UNKNOWN			

### I. SITE DESCRIPTION

A 4.2 acre site formerly a bulk station for standard oil; (1928-1958).

J. INDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.) Paul F. Toft Principal Engineer. Bureau of Plant Engineering & operations. N.J. Dept. of Transportation	K. DATE IDENTIFIED (month, day, & year) 2/7/80
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L. PRINCIPAL STATE CONTACT 1. NAME	2. TELEPHONE NUMBER
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### II. PRELIMINARY ASSESSMENT (complete this section last)

A. APPARENT SERIOUSNESS OF PROBLEM <input type="checkbox"/> 1. HIGH <input type="checkbox"/> 2. MEDIUM <input checked="" type="checkbox"/> 3. LOW <input type="checkbox"/> 4. NONE <input type="checkbox"/> 5. UNKNOWN	
B. RECOMMENDATION <input type="checkbox"/> 1. NO ACTION NEEDED (no hazard) <input checked="" type="checkbox"/> 2. SITE INSPECTION NEEDED a. TENTATIVELY SCHEDULED FOR: 4/18/80 b. WILL BE PERFORMED BY: Wayne Howitz <input type="checkbox"/> 3. IMMEDIATE SITE INSPECTION NEEDED (to immediately schedule for) c. WILL BE PERFORMED BY: <input type="checkbox"/> 4. SITE INSPECTION NEEDED (low priority)	

### C. PREPARER INFORMATION

1. NAME Wayne Howitz	2. TELEPHONE NUMBER (609) 292-9120	3. DATE (month, day, & year)
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### III. SITE INFORMATION

A. SITE STATUS <input type="checkbox"/> 1. ACTIVE (These industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.) <input type="checkbox"/> 2. INACTIVE (Those sites which no longer receive wastes.) <input checked="" type="checkbox"/> 3. OTHER (specify): (These sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)	
D. IS GENERATOR ON SITE? <input type="checkbox"/> 1. NO <input type="checkbox"/> 2. YES (specify generator's four-digit SIC Code):	
C. AREA OF SITE (in acres) 4.2	E. IF APPARENT SERIOUSNESS OF SITE IS HIGH, SPECIFY COORDINATES 1. LATITUDE (deg.-min.-sec.): 40° 30' 25" 2. LONGITUDE (deg.-min.-sec.): 74° 53' 27.5"
F. ARE THERE BUILDINGS ON THE SITE? <input type="checkbox"/> 1. NO <input checked="" type="checkbox"/> 2. YES (specify): Dot Garage	

A. TRANSPORTER	B. STORER	C. TREATER	D. DISPOSER
1. RAIL	1. PILE	1. FILTRATION	1. LANDFILL
2. SHIP	2. SURFACE IMPOUNDMENT	2. INCINERATION	2. LANDFARM
3. BARGE	3. DRUMS	3. VOLUME REDUCTION	3. OPEN DUMP
4. TRUCK	4. TANK, ABOVE GROUND	4. RECYCLING/RECOVERY	4. SURFACE IMPOUNDMENT
5. PIPELINE	5. TANK, BELOW GROUND	5. CHEM./PHYS. TREATMENT	5. MIGHT DUMPING
6. OTHER (specify)	6. OTHER (specify)	6. BIOLOGICAL TREATMENT	6. INCINERATION
		7. WASTE OIL REPROCESSING	7. UNDERGROUND INJECTION
		8. SOLVENT RECOVERY	8. OTHER (specify)
		9. OTHER (specify)	

E. SPECIFY DETAILS OF SITE ACTIVITIES AS NEEDED

Over a 30 year period (1928-1958) standard oil (ESSO) owned this 4.27 acre site, used as a bulk station. 4 10K tanks occupied this site, containing the following as reported by STD, oil, EHM, ESSO, extra, kerosene and ESSO. All equipment was removed by ESSO.

V. WASTE RELATED INFORMATION

A. WASTE TYPE

☐ 1. UNKNOWN ☐ 2. LIQUID ☐ 3. SOLID ☒ 4. SLUDGE ☐ 5. GAS

B. WASTE CHARACTERISTICS

☐ 1. UNKNOWN ☐ 2. CORROSIVE ☐ 3. IGNITABLE ☐ 4. RADIOACTIVE ☐ 5. HIGHLY VOLATILE  
☒ 6. TOXIC ☐ 7. REACTIVE ☐ 8. INERT ☐ 9. FLAMMABLE

☐ 10. OTHER (specify)

C. WASTE CATEGORIES

1. Are records of wastes available? Specify items such as manifests, inventories, etc., below.

No

2. Estimate the amount (specify unit of measure) of waste by category; mark 'X' to indicate which wastes are present.

a. SLUDGE	b. OIL	c. SOLVENTS	d. CHEMICALS	e. SOLIDS	f. OTHER
AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT	AMOUNT
UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE
X 1. PAINT, PIGMENTS	X 1. OILY WASTES	X 1. HALOGENATED SOLVENTS	X 1. ACIDS	X 1. FLYASH	X 1. LABORATORY PHARMACEUT.
2. METALS SLUDGES	2. OTHER (specify)	2. NON-HALOGENATED SOLVENTS	2. PICKLING LIQUORS	2. ASBESTOS	2. HOSPITAL
3. POTW		3. OTHER (specify)	3. CAUSTICS	3. MILLING/ MINE TAILINGS	3. RADIOACTIVE
4. ALUMINUM SLUDGE			4. PESTICIDES	4. FERROUS SMLTG. WASTES	4. MUNICIPAL
5. OTHER (specify)			5. DYES/INKS	5. NON-FERROUS SMLTG. WASTES	5. OTHER (specify)
			6. CYANIDE	6. OTHER (specify)	
			7. PHENOLS		
			8. HALOGENS		
			9. PCB		
			10. METALS		
			11. OTHER (specify)		

E2

## 3. LIST SUBSTANCES OF GREATEST

Hazardous Waste (place in descending order of hazard).

Lead sludge

4. ADDITIONAL COMMENTS OR NARRATIVE DESCRIPTION OF SITUATION KNOWN OR REPORTED TO EXIST AT THE SITE.

## VI. HAZARD DESCRIPTION

A. TYPE OF HAZARD	B. POTENTIAL HAZARD (mark 'X')	C. ALLEGED INCIDENT (mark 'X')	D. DATE OF INCIDENT (mo., day, yr.)	E. REMARKS
1. NO HAZARD				
2. HUMAN HEALTH				
3. NON-WORKER INJURY/EXPOSURE				
4. WORKER INJURY				
5. CONTAMINATION OF WATER SUPPLY				
6. CONTAMINATION OF FOOD CHAIN				
7. CONTAMINATION OF GROUND WATER				
8. CONTAMINATION OF SURFACE WATER				
9. DAMAGE TO FLORA/FAUNA				
10. FISH KILL				
11. CONTAMINATION OF AIR				
12. NOTICEABLE ODORS				
13. CONTAMINATION OF SOIL	X			Lead sludge
14. PROPERTY DAMAGE				
15. FIRE OR EXPLOSION				
16. SPILLS/LEAKING CONTAINERS/ RUNOFF/STANDING LIQUIDS				
17. SEWER, STORM DRAIN PROBLEMS				
18. EROSION PROBLEMS				
19. INADEQUATE SECURITY				
20. INCOMPATIBLE WASTES				
21. MIDNIGHT DUMPING				
22. OTHER (specify)				

# VII. PERMIT INFORMATION

INDICATE ALL APPLICABLE PERMITS BY THE SITE.

- ☐ 1. NPDES PERMIT    ☐ 2. SPCC PLAN    ☐ 3. STATE PERMIT (specify) \_\_\_\_\_  
☐ 4. AIR PERMITS    ☐ 5. LOCAL PERMIT    ☐ 6. RCRA TRANSPORTER  
☐ 7. RCRA STORER    ☐ 8. RCRA TREATER    ☐ 9. RCRA DISPOSER  
☐ 10. OTHER (specify): \_\_\_\_\_

## B. IN COMPLIANCE?

- ☐ 1. YES    ☐ 2. NO    ☒ 3. UNKNOWN

4. WITH RESPECT TO (list regulation name & number): \_\_\_\_\_

## VIII. PAST REGULATORY ACTIONS

- ☒ A. NONE    ☐ B. YES (summarize below)

## IX. INSPECTION ACTIVITY (past or on-going) None to date

- ☐ A. NONE    ☐ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

## X. REMEDIAL ACTIVITY (past or on-going)

- ☐ A. NONE    ☐ B. YES (complete items 1, 2, 3, & 4 below)

1. TYPE OF ACTIVITY	2. DATE OF PAST ACTION (mo., day, & yr.)	3. PERFORMED BY: (EPA/State)	4. DESCRIPTION

NOTE: Based on the information in Sections III through X, fill out the Preliminary Assessment (Section II) information on the first page of this form.

**GENERAL INSTRUCTIONS** Complete Sections I and III through XV of this form as completely as possible. Then use the information on this form to develop a Tentative Disposition (Section II). File this form in its entirety in the regional Hazardous Waste Log file. Be sure to include all appropriate Supplemental Reports in the file. Submit a copy of the forms to: U.S. Environmental Protection Agency, Site Tracking System, Hazardous Waste Enforcement Task Force (EN-335), 401 M St., SW, Washington, DC 20460.

**I. SITE IDENTIFICATION**

<b>A. SITE NAME</b> N.J. DOT Maintenance Yard		<b>B. STREET (or other identifier)</b> West of Rt. 31 North	
<b>C. CITY</b> Flemington	<b>D. STATE</b> N.J.	<b>E. ZIP CODE</b>	<b>F. COUNTY NAME</b> Hurterdon

**G. SITE OPERATOR INFORMATION**

<b>1. NAME</b>		<b>2. TELEPHONE NUMBER</b>	
<b>1. STREET</b>	<b>4. CITY</b>	<b>5. STATE</b>	<b>6. ZIP CODE</b>

**H. REALTY OWNER INFORMATION (if different from operator of site)**

<b>1. NAME</b>		<b>2. TELEPHONE NUMBER</b>	
<b>1. CITY</b>	<b>4. STATE</b>	<b>5. ZIP CODE</b>	

**I. SITE DESCRIPTION**

A 90' x 180' Area, where lead sludge presumably was buried.

**J. TYPE OF OWNERSHIP**

☐ 1. FEDERAL ☒ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☐ 5. PRIVATE

**II. TENTATIVE DISPOSITION (complete this section last)**

<b>A. ESTIMATE DATE OF TENTATIVE DISPOSITION (mo., day, &amp; yr.)</b>	<b>B. APPARENT SERIOUSNESS OF PROBLEM</b> <input type="checkbox"/> 1. HIGH <input type="checkbox"/> 2. MEDIUM <input type="checkbox"/> 3. LOW <input type="checkbox"/> 4. NONE
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**C. PREPARED BY INFORMATION**

<b>1. NAME</b> Wayne Howitz	<b>2. TELEPHONE NUMBER</b> (609) 292-9120	<b>3. DATE (mo., day, &amp; yr.)</b> 4/30/80
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**III. INSPECTION INFORMATION**

<b>A. PRINCIPAL INSPECTOR INFORMATION</b>	
<b>1. NAME</b> Wayne Howitz	<b>2. TITLE</b> Enviornmental Specialist
<b>3. ORGANIZATION</b> N.J. DEP-TSIU	<b>4. TELEPHONE NO. (area code &amp; no.)</b> (609) 292-9120

**B. INSPECTION PARTICIPANTS**

1. NAME	2. ORGANIZATION	3. TELEPHONE NO.

**C. REPRESENTATIVES INTERVIEWED (company officials, workers, residents)**

1. NAME	2. TITLE & TELEPHONE NO.	3. ADDRESS
Paul F. Toft	Principal Engineer N.J. DOT (609) 292-3557	1035 Parkway Ave. Trenton, N.J. 08625

Standard Oil			Lead Sludge
<b>E. TRANSPORTER/HAULER INFORMATION</b> <u>On site disposal</u>			
1. NAME	2. TELEPHONE NO.	3. ADDRESS	4. WASTE TYPE TRANSPORTED
<b>F. IF WASTE IS PROCESSED ON SITE AND ALSO SHIPPED TO OTHER SITES, IDENTIFY OFF-SITE FACILITIES USED FOR DISPOSAL.</b>			
1. NAME	2. TELEPHONE NO.	3. ADDRESS	
G. DATE OF INSPECTION (mo., day, & yr.)	H. TIME OF INSPECTION	I. ACCESS GAINED BY: (credentials must be shown in all cases)	
4/18/80	11:00AM-12:00PM	<input checked="" type="checkbox"/> 1. PERMISSION <input type="checkbox"/> 2. WARRANT	
J. WEATHER (describe)			
Sunny, small breeze emanating from the S.E. temp. ~ 64° F			
<b>IV. SAMPLING INFORMATION</b>			
A. Mark 'X' for the types of samples taken and indicate where they have been sent e.g., regional lab, other EPA lab, contractor, etc. and estimate when the results will be available.			
1. SAMPLE TYPE	2. SAMPLE TAKEN (mark 'X')	3. SAMPLE SENT TO:	4. DATE RESULTS AVAILABLE
I. GROUNDWATER		*Note: no sampling to date	
II. SURFACE WATER			
C. WASTE			
D. AIR			
E. RUNOFF			
F. SOIL			
G. SOIL			
H. VEGETATION			
I. OTHER (specify)			
<b>J. FIELD MEASUREMENTS TAKEN (e.g., radioactivity, explosivity, PH, etc.)</b>			
1. TYPE	2. LOCATION OF MEASUREMENTS	3. RESULTS	
Radioactivity	Entire site	below limits of detectability	



# IV. SAMPLING INFORMATION (continued)

1. TYPE OF PHOTOS  
☒ X. AERIAL  
☐ 2. MAPS  
☒ X. YES, SPECIFY LOCATION OF MAPS: **Attached**

2. PHOTOS IN CUSTODY OF  
**N.J. DEP TSIU**

3. COORDINATES  
 1. LATITUDE (deg.-min.-sec.)  
**40° 30' 25"**  
 2. LONGITUDE (deg.-min.-sec.)  
**74° 53' 27.5"**

## V. SITE INFORMATION

1. ACTIVE (Those industrial or municipal sites which are being used for waste treatment, storage, or disposal on a continuing basis, even if infrequently.)  
☐ 2. INACTIVE (Those sites which no longer receive waste.)  
☐ 3. OTHER (specify):  
 (Those sites that include such incidents like "midnight dumping" where no regular or continuing use of the site for waste disposal has occurred.)

4. IS GENERATOR ON SITE?  
☒ 1. NO  
☐ 2. YES (specify generator's four-digit SIC Code)  
**From 1928-1958 this site was a bulk station for standard oil**

5. AREA OF SITE (in acres)  
**90' x 180' (Buried lead sludge)**

6. ARE THERE BUILDINGS ON THE SITE?  
☐ 1. NO  
☒ 2. YES (specify)  
**see attached plot plan**

## CHARACTERIZATION OF SITE ACTIVITY

Indicate the major site activity(ies) and detail(s) relating to each activity by marking "X" in the appropriate boxes.

A. TRANSPORTER	B. STORER	C. TREATER	D. DISPOSER
<input checked="" type="checkbox"/> 1. RAIL	<input type="checkbox"/> 1. PILE	<input type="checkbox"/> 1. FILTRATION	<input type="checkbox"/> 1. LANDFILL
<input type="checkbox"/> 2. TRUCK	<input type="checkbox"/> 2. SURFACE IMPOUNDMENT	<input type="checkbox"/> 2. INCINERATION	<input type="checkbox"/> 2. LANDFARM
<input type="checkbox"/> 3. BARGE	<input type="checkbox"/> 3. TANK	<input type="checkbox"/> 3. VOLATILE REDUCTION	<input type="checkbox"/> 3. OPEN DUMP
<input type="checkbox"/> 4. TANK	<input type="checkbox"/> 4. TANK ABOVE GROUND	<input type="checkbox"/> 4. RECYCLING/RECOVERY	<input type="checkbox"/> 4. SURFACE IMPOUNDMENT
<input type="checkbox"/> 5. PIPELINE	<input type="checkbox"/> 5. TANK BELOW GROUND	<input type="checkbox"/> 5. CHEMICALS TREATMENT	<input type="checkbox"/> 5. MIDNIGHT DUMPING
<input type="checkbox"/> 6. OTHER (specify):	<input type="checkbox"/> 6. OTHER (specify):	<input type="checkbox"/> 6. BIOLOGICAL TREATMENT	<input type="checkbox"/> 6. INCINERATION
		<input type="checkbox"/> 7. WASTE OIL REPROCESSING	<input type="checkbox"/> 7. UNDERGROUND INJECTION
		<input type="checkbox"/> 8. SOLVENT RECOVERY	<input type="checkbox"/> 8. OTHER (specify):
		<input type="checkbox"/> 9. OTHER (specify):	

SUPPLEMENTAL REPORTS: If the site falls within any of the categories listed below, Supplemental Reports must be completed. Indicate which Supplemental Reports you have filled out and attached to this form.

☐ 1. STORAGE  
☐ 2. INCINERATION  
☐ 3. LANDFILL  
☐ 4. SURFACE IMPOUNDMENT  
☐ 5. DEEP WELL  
☐ 6. CHEM/BIO/PHYS TREATMENT  
☐ 7. LANDFARM  
☒ X. 8. OPEN DUMP  
☐ 9. TRANSPORTER  
☐ 10. RECYCLOR/RECLAIMER

## VII. WASTE RELATED INFORMATION

WASTE TYPE  
☐ 1. LIQUID  
☐ 2. SOLID  
☒ X. 3. SLUDGE  
☐ 4. GAS

WASTE CHARACTERISTICS  
☐ 1. CORROSIVE  
☐ 2. IGNITABLE  
☐ 3. RADIOACTIVE  
☐ 4. HIGHLY VOLATILE  
☒ X. 5. TOXIC  
☐ 6. REACTIVE  
☐ 7. INERT  
☐ 8. FLAMMABLE  
☐ 9. OTHER (specify):

WASTE CATEGORIES  
 1. Are records of wastes available? Specify items such as manifests, inventories, etc. below.  
**No, however standard oil reported that lead sludge was buried 4,200' West of Rt. 31, 28' S.E. of S. Branch R.R. tracks.**

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\* ACCORDING TO MR. ROBERT BRITTON, NJDOT IN A TELEPHONE CONVERSATION ON 4-28-87 THIS 4,200 FIGURE IS INCORRECT AND SHOULD READ 420 FEET. F3



☐ C. WORKER INJURY/EXPOSURE

☐ D. CONTAMINATION OF WATER SUPPLY

Nearby residences are on public water.

☐ E. CONTAMINATION OF FOOD CHAIN

N/A

☒ F. CONTAMINATION OF GROUND WATER

Ground water is approximately 4' below the surface. Groundwater contamination is possible, due to the chemical properties of lead.

☐ G. CONTAMINATION OF SURFACE WATER

F5

☐ I. FISH KILL

N/A

☐ J. CONTAMINATION OF AIR

N/A

☒ K. NOTICEABLE ODORS

No noticeable odors (that may be attributed to chemicals/sludge) were noticed during my inspection.

☒ L. CONTAMINATION OF SOIL

Soil contamination is very likely, due to the chemical nature of lead and it's slow dissipational breakdown in the environment.

☐ M. PROPERTY DAMAGE

N/A

F<sub>6</sub>

☐ O. SPILLS/LEAKING CONTAINERS/RUNOFF/STANDING LIQUID

☐ P. SEWER, STORM DRAIN PROBLEMS

☐ Q. EROSION PROBLEMS

☐ R. INADEQUATE SECURITY

Open area

☐ S. INCOMPATIBLE WASTES

F7

1. OYOE H (opacities)

### ALLOCATION OF POPULATION

A. NAME	B. ADDRESS	C. PHONE NO.	D. OCCUPATION	E. RELATIONSHIP	F. APPROX. NO. OF PEOPLE AFFECTED
1. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
2. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
3. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
4. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
5. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
6. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
7. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
8. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
9. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
11. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
12. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
13. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
14. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
15. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
16. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
17. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
18. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
19. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
20. [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
21. [REDACTED]	[REDACTED]	[REDACTED]			

3. APPROX. NO. OF PEOPLE  
AFFECTED WITHIN  
UNIT AREA

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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E. DISTANCE  
TO SITE  
(specify units)

1 11. 41 511.6 INITIAL AND AS

2. 19. COMMERCIAL  
2. 20. INDUSTRIAL AREAS

1. INDIVIDUALLY  
TRAVELLED AREAS

• PUBLIC USE ATLAS  
( Parks, Schools, etc.)

Central R.R. of New Jersey

28' S.E.

Flemmington Memorial Park Association

150' N.W.

## X. WATER AND HYDROLOGICAL DATA

5. DEPTH TO GROUNDWATER (specify unit)

4.

1. DIRECTION OF FLOW

S. E.

C. GROUNDWATER USE IN VICINITY

### POTENTIAL YIELD OF AQUIFER

1. DISTANCE TO DRINKING WATER SUPPLY  
(specify unit of measure)

F. DIRECTION TO DRINKING WATER SUPPLY

### TYPE OF DRINKING WATER SUPPLY

1. NON-COMMUNITY  
'IS CONNECTIONS'

☐ 2. COMMUNITY (specify town)  
> 15 CONNECTIONS

3. SURFACE WATER

☐ 4. WELL

F<sub>8</sub>

# XIV. PERMIT INFORMATION

List all applicable permits held by [ ] and provide the related information.

A. PERMIT TYPE (e.g., RCRA State NEPA, etc.)	B. ISSUING AGENCY	C. PERMIT NUMBER	D. DATE ISSUED (month, day, & year)	E. EXPIRATION DATE (month, day, & year)	F. IN COMPLIANCE (mark 'X')		
					1. YES	2. NO	3. UNKNOWN

## XV. POST-REGULATORY OR ENFORCEMENT ACTIONS

☐ NONE ☐ YES (summarize in this space)

NOTE: Based on the information in Sections III through XV, fill out the Tentative Disposition (Section II) information on the first page of this form.

# II. WATER AND HYDROLOGICAL DATA (cont'd)

1. LIST ALL DRINKING WATER WELLS WITHIN A 1/4 MILE RADIUS OF SITE

1. WELL	2. DEPTH (specify unit)	3. LOCATION (proximity to population/buildings)	4. NON-COM- MUNITY (mark 'X')	5. COMMUN- ITY (mark 'X')

## 6. RECEIVING WATER

1. NAME

☐ 2. SEWERS

☒ 3. STREAMS/RIVERS

Walnut Brook

☐ 4. LAKES/RESERVOIRS

☐ 5. OTHER (specify)

8. SPECIFY USE AND CLASSIFICATION OF RECEIVING WATERS

FW-2 according to the N.J. DEP Surface Water Quality Standards  
(Docket# DEP 012-74-11).

## XI. SOIL AND VEGETATION DATA

1. LOCATION OF SITE IS IN

☐ A. KNOWN FAULT ZONE

☐ B. KARST ZONE

☐ C. 100 YEAR FLOOD PLAIN

☐ D. WETLAND

☐ E. A REGULATED FLOODWAY

☐ F. CRITICAL HABITAT

☐ G. RECHARGE ZONE OR SOLE SOURCE AQUIFER

## XII. TYPE OF GEOLOGICAL MATERIAL OBSERVED

Mark 'X' to indicate the type(s) of geological material observed and specify where necessary, the component parts.

A. OVERBURDEN	X	D. BEDROCK (specify below)	X	C. OTHER (specify below)
1. SAND		1½-3½ feet (Shale)		
2. CLAY				
3. GRAVEL				

## XIII. SOIL PERMEABILITY

☐ A. UNKNOWN

☐ B. VERY HIGH (100,000 to 1000 cm/sec.)

☐ C. HIGH (1000 to 10 cm/sec.)

☐ D. MODERATE (10 to 1 cm/sec.)

☐ E. LOW (.1 to .001 cm/sec.)

☐ F. VERY LOW (.001 to .00001 cm/sec.)

1. RECHARGE AREA

1. YES

2. NO

3. COMMENTS

2. DISCHARGE AREA

1. YES

2. NO

3. COMMENTS

3. SLOPE

1. ESTIMATE % OF SLOPE

2-6%

2. SPECIFY DIRECTION OF SLOPE, CONDITION OF SLOPE, ETC.

4. OTHER GEOLOGICAL DATA

According to the U.S. Dept. of Agriculture soil survey for Hunterdon County. This area consists of the following soil series: Reaville silt loam. Representative profile: 0-13" silt loam, shaly silt loam; 13-23" silt loam, shaly silt loam, 23" shale bedrock.





NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION  
DIVISION OF WATER RESOURCES  
ENFORCEMENT & REGULATORY SERVICES



County Book NO

COMPLIANCE EVALUATION INSPECTION  
PUBLIC COMMUNITY WATER SUPPLY

DATE December 4, 1986

GENERAL INFORMATION

PURVEYOR/ FACILITY <u>Flemington Water Department</u>	
FILE LOCATION <u>Borough of Flemington, Hunterdon Co.</u>	PW-ID # <u>1009001</u>
MAILING ADDRESS <u>38 PARK Ave, Flemington, NJ 08822</u>	
ADMIN. <u>Richard Stothoff</u>	REQUIRED T-1 <u>Richard Stothoff</u> LICENSES <u>2</u>
BUSINESS TELEPHONE # Admin.: <u>(201) 782-8840</u> Licensed Operators: T-4(201) <u>782-8840</u> W-4(201) <u>782-8840</u>	

FACILITY DESCRIPTION

SOURCES: descriptions, locations, capacities(mgd): Well #4, Reaville Ave 0.262 mgd  
#5 - Court Street - 0.331 mgd ; #6 - Memorial Park - 0.158 mgd  
#7 - Route 12 0.302 mgd

Est Tot Eff Cap: 1.053 mgd

TREATMENT: source, type, capacities(mgd): #4 - Gas chlorination - Wallace & Tiernan - 10 lb/day  
#5 - Gas chlorination, WAT 10 lb/day cap #6 - Gas chlorination,  
WAT - 4 #/day ; #7 - Gas chlorination - WAT, 10 lb/day capacity

Est Tot Eff Cap: 1.053 mgd

FINISHED WATER STORAGE: descriptions, locations, capacities(mg): Standpipe located off  
Shields Ave, 1.00 mg, Gravity Feed

Est Tot Cap: 1.0 mgd

EMERGENCY INTERCONNECTIONS: descriptions, available gallonage(mgd):  
Elizabeth town water Co, 4" main  
Maple Glen supply 6" main

AUXILIARY location, type, capacity:  
GARAGE



NJDEP - DIVISION OF WATER RESOURCES  
PUBLIC COMMUNITY WATER SUPPLY INSPECTION



Page 2

DELIVERY INFORMATION

PLANT DELIVERED WATER (mgd, month, year) Max 0.722 5/86 Min 0.628 8/86 Annual Average 0.664	
BULK PURCHASES (provider, mgd) None	
BULK SALES (customer, mgd) None	
NUMBER OF SERVICES 1229	% METERED 100%
MUNICIPALITIES SERVED (est. services in each) Flemington Borough, Raritan Twp.	
TOTAL ESTIMATED POPULATION SERVED 4237	
CURRENT/RECENT WATER RESTRICTIONS None	
NEW CONSTRUCTION (Project Numbers) None	
DISTRIBUTION MAINS: Sizing 4" (min) to 12" (max) Pressures 40 PSI (min) to 60 PSI (max) Hydrants/Flushing Program Yes / twice per year	

MONITORING & REPORTING

PARAMETER(S)	FREQUENCY REQUIRED	FREQUENCY PERFORMED
Coliform	5 per month	per month
Inorganics	1 per 3 years	one 6/84 due 6/87
Nitrate	1 per 3 years	one 6/84 due 6/87
Trihalomethanes		
Organics		
Turbidity		
Radiological	every 4 years	completed 6/86
Secondary	every 3 years	done 5/84 due 5/87
A280	twice per year	5/86 due 12/86

NAME OF LABORATORY Quality Control Lab CERTIFICATION # 77166  
ADDRESS Southampton PA

COMPLIANCE EVALUATION

SOURCE DEFICIENCIES None  
  
  
  
  
  
  
  
TREATMENT DEFICIENCIES None

G2

**MEMO**NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO FILE - NJDOT (FLEMINGTON) DATE                     

FROM FRANK FARANCA, HSMS IV

SUBJECT SITE RECONNAISSANCE

At 1000 hours on 4-27-87 the writer conducted a site reconnaissance of the NJDOT Maintenance Yard located on Route # 31, Flemington Borough, Hunterdon County. The NJDOT facility is completely fenced to prevent access by unauthorized personnel. The facility is bordered by Route # 31, the ~~Central Railroad~~ of New Jersey and Flemington Borough Memorial Park. The site itself is relatively level, however surface water flow direction is to the north-east toward an intermittent stream leading to Bushkill Brook.

FF:mz

ATTACHMENT H

# THE MERCK INDEX

AN ENCYCLOPEDIA OF  
CHEMICALS AND DRUGS

NINTH EDITION

ELSAADY

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Susan Budavari, *Associate Editor*  
Lorraine Y. Stroumtsos, *Assistant Editor*  
Margaret Noether Fertig, *Assistant Editor*

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**MERCK & CO., INC.**  
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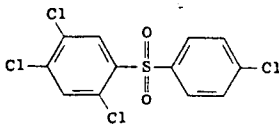
1976

ATTACHMENT

I

## Tetraethylammonium Bromide

fonyl chloride and monochlorobenzene; also by Sandmeyer diazotization of 2,4,5-trichloro-4'-aminodiphenyl sulfone in the presence of CuCl. Meltzer, Huisman, U.S. pat. 2,812,281 (1957 to Phillips); Huisman *et al.*, *Rec. Trav. Chim.* 77, 103 (1958).



Crystals from benzene; mp 146.5-147.5°. Stable to concd and dil alkalis, mineral acids, high temp, and u.v. light. Soly data: Huisman *et al.*, *loc. cit.* LD<sub>50</sub> in rats: 556 mg/kg orally, Ben-dyke *et al.*, *World Rev. Pest Contr.* 9, 119 (1970).  
USE: Acaricide. Ovicide on deciduous fruits, citrus, cotton and other crops.

**8917. Tetraethylammonium Bromide.** *N,N,N,N*-Triethyl-ethanaminium bromide; TEAB; TMD-10; Etylon; Etambro; Sympatektoman; Tetranium. C<sub>12</sub>H<sub>20</sub>BrN; mol wt 210.16. C 45.72%, H 9.59%, Br 38.03%, N 6.67%. (C<sub>2</sub>H<sub>5</sub>)<sub>4</sub>NBr. Ganglion blocking agent. Prepd from triethylamine and ethyl bromide: Hofmann, *Ann.* 78, 263 (1851). Review of the pharmacology of the tetraethylammonium ion: Moe, Freyburger, *Pharmacol. Rev.* 2, 61-95 (1950).

Deliquescent crystals. Freely sol in water, alc, chloroform, acetone. Slightly sol in benzene. pH of a 10% aq soln 6.5. The pH is not changed by heating for 28 hrs at 95°.

**8918. Tetraethylammonium Chloride.** Etamon chloride; T.E.A. chloride. C<sub>12</sub>H<sub>20</sub>ClN; mol wt 165.71. C 57.98%, H 12.17%, Cl 21.40%, N 8.45%. (C<sub>2</sub>H<sub>5</sub>)<sub>4</sub>NCl. Ganglion blocking agent. See Tetraethylammonium Bromide.

Deliquescent crystals. d<sub>4</sub><sup>20</sup> 1.0801. Freely sol in water, alcohol, chloroform, acetone; slightly sol in benzene. pH of 10% aq soln 6.48. The pH is not changed by heating for 28 hrs at 95°.

Tetrahydrate, monoclinic prismatic crystals. mp 37.5°. d 1.084.

**8919. Tetraethylammonium Hydroxide.** C<sub>12</sub>H<sub>21</sub>NO; mol wt 147.26. C 65.25%, H 14.37%, N 9.51%, O 10.86%. (C<sub>2</sub>H<sub>5</sub>)<sub>4</sub>NOH. Made from the corresp halide by treating with silver oxide or with a soln of potassium hydroxide in methanol.

Marketed as an aq soln. A 10% soln has a d<sub>4</sub><sup>25</sup> of about 1.01. The free base is known only in soln or as hydrates; tetrahydrate, mp 49-50°; hexahydrate, mp 55°. Dec on boiling. It is a very strong base readily absorbing CO<sub>2</sub> from the air. The aq soln is colorless, odorless, bitter, caustic, strongly alkaline, and imparts a soapy feel to the skin. Keep well closed.

**8920. Tetraethylammonium Iodide.** C<sub>12</sub>H<sub>20</sub>IN; mol wt 257.17. C 37.36%, H 7.84%, I 49.35%, N 5.45%. (C<sub>2</sub>H<sub>5</sub>)<sub>4</sub>NI. Made from triethylamine and ethyl iodide.

White to yellowish crystals. d 1.566. Does not melt below 200°. Sol in water, alcohol; sparingly sol in chloroform; insol in ether.

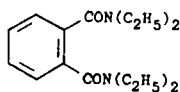
**8921. Tetraethyllead.** *Tetraethylplumbane*; lead tetraethyl; TEL. C<sub>8</sub>H<sub>16</sub>Pb; mol wt 323.45. C 29.70%, H 6.23%, Pb 64.06%. Pb(C<sub>2</sub>H<sub>5</sub>)<sub>4</sub>. Prepd by the action of PbCl<sub>2</sub> on zinc ethyl or on a Grignard reagent; by heating C<sub>2</sub>H<sub>5</sub>Cl and sodium-lead alloy in an autoclave. The production from lead, ethylene, and hydrogen using triethylaluminum as intermediate was first described by K. Ziegler at the 14th International Congress of Pure and Applied Chemistry (July 1955); *Chem. & Eng. News* 33, 3486 (1955). Alternate synthesis using nonhalide compds: Pearson *et al.*, *Advances in Chemistry Series* 23, 299-305 (1959).

Colorless liq; burns with an orange-colored flame with green margin. *Extremely poisonous!* d<sub>4</sub><sup>20</sup> 1.653. bp about 200° also stated as 227.7° with decompn. n<sub>D</sub><sup>20</sup> 1.5198. Practically insoluble in water; soluble in benzene, petr ether, gasoline, slightly in alcohol. LD<sub>50</sub> orally in rats: 12.3 mg/kg. Schroeder *et al.*, *Experientia* 28, 923 (1972).

USE: As a gasoline additive to prevent "knocking" in motors. See also Milde, Beatty, "Chemical Reactions of

Tetraethyllead" in *Advances in Chemistry Series* 23, 306-318 (1959). *Caution:* Acute or chronic poisoning may occur if inhaled or absorbed through skin. See E. Browning, *Toxicity of Industrial Metals* (Appleton-Century-Crofts, London, 2nd ed., 1969) pp 192-199.

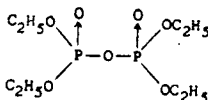
**8922. *N,N,N',N'*-Tetraethylphthalamide.** *N,N,N',N'*-Tetraethyl-1,2-benzenedicarboxamide; orthophthalic acid diethylamide; *o*-phthalic acid bis(diethylamide); tetraethylbis(phthalamide); Analetil; Neo-Cardamine; Neospiran; Unispiran. C<sub>16</sub>H<sub>24</sub>N<sub>2</sub>O<sub>4</sub>; mol wt 276.37. C 69.53%, H 8.75%, N 10.14%, O 11.58%. Prepd by treating phthalic chloride with diethylamine: Fr. pat. 785,428; Bril, pat. 443,396; U.S. pat. 2,057,145 (1936 to Chem. Fabrik Grünau); by heating sodium phthalate with diethylamine phosphate: Fr. pat. 866,229 (1941 to Corbière).



Crystals, mp 39°. bp 175-180°. Soluble in water, physiol saline.

THERAP CAT: Analeptic.

**8923. Tetraethyl Pyrophosphate.** *Diphosphoric acid tetraethyl ester; pyrophosphoric acid tetraethyl ester; bis-O,O-diethylphosphoric anhydride; TEPP; Bladan; Nifos T; Kilmite 40; Vapotone; Tetron; Killax; Mortopal.* C<sub>8</sub>H<sub>20</sub>O<sub>7</sub>P<sub>2</sub>; mol wt 290.20. C 33.11%, H 6.95%, P 21.35%, O 38.59%. Prepd commercially by controlled hydrolysis of *O,O*-diethylphosphoric acid chloride: Kosolapoff, U.S. pat. 2,479,939 (1947 to Monsanto); Toy, *J. Am. Chem. Soc.* 70, 3882 (1948). Chemical history and comparison of various syntheses: G. Schrader, *Die Entwicklung Neuer Insektizider Phosphorsäure-Ester* (Verlag Chemie, Weinheim, 3rd ed., 1963) pp 68-79.



Mobile liquid. Agreeable odor. Hygroscopic. d<sub>4</sub><sup>20</sup> 1.185. Thermal decompn range 170-213° with copious formn of ethylene. bp<sub>0.05</sub> 82°; bp<sub>1</sub> 124°; bp<sub>2</sub> 138°. Vapor pressure at 30° = 4.7 × 10<sup>-4</sup> mm Hg. n<sub>D</sub><sup>20</sup> 1.4196. Miscible with water, but quickly hydrolyzed by it (half life at 25° about 7 hrs in a 50 v/v mixt.). Also miscible with acetone, methanol, ethanol, benzene, chloroform, carbon tetrachloride, glycerol, ethylene glycol, propylene glycol, toluene, xylene. Not miscible with petr ether, kerosene, other petr oils. LD<sub>50</sub> orally in rats: 1.12 mg/kg; topically in rabbits: 5 mg/kg.

USE: Insecticide, especially to control aphids, thrips, and mites, instead of nicotine sulfate. *Caution:* Cholinesterase inhibitor.

THERAP CAT: Anticholinesterase; cholinergic.

**8924. 2,2,3,3-Tetrafluoro-1-propanol.** C<sub>3</sub>-Fluoroalcohol. C<sub>3</sub>H<sub>5</sub>F<sub>4</sub>O; mol wt 132.06. C 27.28%, H 3.05%, F 57.55%, O 12.12%. HCF<sub>2</sub>CF<sub>2</sub>CH<sub>2</sub>OH. Prepn: Bestian, Rehn, Ger. pat. 1,007,771 (1957 to Hoechst).

Liquid. d<sub>4</sub><sup>20</sup> 1.4853. mp -15°. bp<sub>760</sub> 109-110°. n<sub>D</sub><sup>20</sup> 1.3197. Surface tension at 20° = 27.6 dyn/cm. *p*-Nitrobenzoate, mp 47°.

USE: To introduce fluoroalkyl groups into an organic molecule. Proposed intermediate for plastics, surface active agents, lubricants, elastomers.

**8925. Tetraglycine Hydroperiodide.** Globaline. C<sub>16</sub>H<sub>31</sub>I<sub>2</sub>N<sub>4</sub>O<sub>16</sub>; mol wt 1490.95. C 12.89%, H 2.84%, I 59.58%, N 7.52%, O 17.17%. 2[(NH<sub>2</sub>CH<sub>2</sub>COOH)<sub>2</sub>HI]·2H<sub>2</sub>O. Prepn: Frost, Eddy, *J. Am. Chem. Soc.* 74, 1346 (1952); Morris *et al.*, *Ind. Eng. Chem.* 45, 1013 (1953).

Flat needles with brassy-bronze metallic luster in reflected light, dec 162-167°. Soly in water at 25° = 380 g/l.

USE: Decontamination of drinking water in emergencies. Used in amounts sufficient to yield 8 ppm of active iodine. A tablet contg 20 mg plus 96 mg Na<sub>2</sub>H<sub>2</sub>PO<sub>4</sub> plus 4 mg talc will decontaminate one quart of water. Such tablets after 7

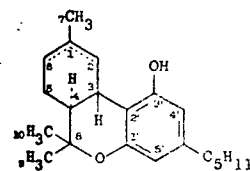
days' storage at 60° retained 60% ioc. Less stable than aluminum

**8926. Tetraglyme.** 2,5,8,11,14-pentamethylene glycol dimethyl ether, glycol. C<sub>10</sub>H<sub>22</sub>O<sub>5</sub>; mol wt 222.33. 35.99%. CH<sub>3</sub>O(CH<sub>2</sub>CH<sub>2</sub>O)<sub>4</sub>CH<sub>3</sub>. Cool methyl ether and 2,2'-dichloro. U.S. pat. 2,111,234 (1935); *Ind. Purification*: Vogel, *J. Chem. Soc.* Liquid. d<sub>4</sub><sup>20</sup> 1.0087; d<sub>4</sub><sup>25</sup> 0.9511. bp<sub>1</sub> 118°. n<sub>D</sub><sup>20</sup> 1.4325. Sol in wat, bon solvents.

USE: Solvent.

**8927. Tetrahydrocannabinol.** *Δ*<sup>9</sup>-Tetrahydro-6,6,11-trimethyl-3-pentyl-6,6-dibenzof[3,4]pyrene. C<sub>21</sub>H<sub>30</sub>O; mol wt 314.45. C 80.21%, H 9.62%, O 0.17%. *Δ*<sup>9</sup>-*Δ*<sup>8</sup>-3,4-trans isomer both have been active, although the former is more active component: Mechoulam (1970). Isola of *Δ*<sup>1</sup>-*Δ*<sup>8</sup>-3,4-trans-*Δ*<sup>9</sup>-Tetrahydrocannabinol, *J. Am. Chem. Soc.* 92, 5934 (1970); Radden *et al.*, *Experientia* 31, 16 (1975); of *Δ*<sup>1</sup>-*Δ*<sup>8</sup>-3,4-trans-*Δ*<sup>9</sup>-Tetrahydrocannabinol, *J. Am. Chem. Soc.* 93, 5934 (1971); synthesis of (-)-*Δ*<sup>1</sup>-*Δ*<sup>8</sup>-3,4-trans-*Δ*<sup>9</sup>-Tetrahydrocannabinol, *J. Am. Chem. Soc.* 93, 5934 (1971); configuration of naturally occurring Gaoni, *Tetrahedron Letters* 15, 151 (1970) and Hashish.

alternate numbering



*Δ*<sup>1</sup>-THC = *Δ*<sup>9</sup>-THC

*Δ*<sup>6</sup>-THC = *Δ*<sup>1</sup>(6)

(-)-*Δ*<sup>1</sup>-3,4-trans-Form, bp<sub>0.05</sub> 0.53 in CHCl<sub>3</sub>, uv max (ethanol) 320. IR, NMR, MS data as in meier, *Helv. Chim. Acta* 50, 211 (1967).

(-)-*Δ*<sup>6</sup>-3,4-trans-Form, bp<sub>0.05</sub> 0.11 in ethanol, uv max (ethanol) 322; shoulder at 230 nm (log ε in Petralka, Sikemeier, *ibid.*, 1967). *Caution:* May produce serious

**8928. Tetrahydrocortisone.** *Pregnane-11,20-dione*; 3α,17α,21α,20-pregnanedione-3α,17α,21α-triol. C<sub>21</sub>H<sub>32</sub>O<sub>5</sub>; mol wt 364.47. C 69.20%, H 8.8%. mammalian metabolite of cort. *Chem.* 183, 365 (1950). Prepn: a *Streptomyces* sp.: Barkemeyer (1960). Prepn of the triacetate. Merck & Co.). Prepn of the 21 U.S. pat. 2,752,339 (1956 to Glidde.

# Dangerous Properties of Industrial Materials

Sixth Edition

N. IRVING SAX

Assisted by:

Benjamin Feiner/Joseph J. Fitzgerald/Thomas J. Haley/Elizabeth K. Weisburger



VAN NOSTRAND REINHOLD COMPANY  
NEW YORK CINCINNATI TORONTO LONDON MELBOURNE

ATTACHMENT

J

**THR:** HIGHLY tox. A parathion-like cholinesterase inhibitor.

**Disaster Hazard:** When heated to decomp it emits very tox fumes of  $\text{PO}_x$  and  $\text{SO}_x$ .

### **TETRAETHYLDITHIOPYROPHOSPHORIC ACID (LIQUID MIXTURE)**

CAS RN: 3689245. NIOSH #: UX 6801000  
mf:  $\text{C}_8\text{H}_{20}\text{O}_5\text{P}_2\text{S}_2$ ; mw: 322.34

Liquid, nearly water insol.

SYN: TETRAETHYL DITHIO PYROPHOSPHATE MIXTURE, LIQUID (DOT)

#### **TOXICITY DATA:**

DOT: Poison B, Label: Poison FEREAC 41,57018,76.

**THR:** A poison. A HIGH, cholinesterase inhibitor. See also parathion.

**Disaster Hazard:** Dangerous; see parathion. When heated to decomp it emits very tox fumes of  $\text{PO}_x$  and  $\text{SO}_x$ .

### **TETRAETHYLENE GLYCOL**

CAS RN: 112607 NIOSH #: XC 2100000  
mf:  $\text{C}_6\text{H}_{18}\text{O}_5$ ; mw: 194.26

Colorless to pale straw-colored liquid. bp: 327.3°, fp: -6°, flash p: 360°F (OC), d: 1.1248 @ 20°/20°, vap. press: 1 mm @ 153.9°. Misc in water.

SYN: 2,2'-(OXYBIS(ETHYLENEOXY))DIETHANOL

#### **TOXICITY DATA:** 1

#### **CODEN:**

skn-rbt 550 mg open MLD

UCDS\*\* 3/3/69

eye-rbt 565 mg

AJOPAA 29,1363,46

ori-rat LD50: 29 gm/kg

UCDS\*\* 3/3/69

Aquatic Toxicity Rating: TLM96: over 1000 ppm  
WQCHM\* 3,-,74. Reported in EPA TSCA Inventory, 1980.

**THR:** LOW orl. A skn, eye irr.

**Fire Hazard:** Slight, when exposed to heat or flame; can react with oxidizing materials.

**Spontaneous Heating:** No.

**To Fight Fire:** Alcohol foam, water,  $\text{CO}_2$ , dry chemical.

**Disaster Hazard:** When heated to decomp it emits acrid smoke and fumes.

### **TETRAETHYLENEPENTAMINE**

CAS RN: 112572 NIOSH #: KH 8585000  
mf:  $\text{C}_8\text{H}_{23}\text{N}_5$ ; mw: 189.36

Viscous, hygroscopic liquid. bp: 333°, flash p: 325°F (OC), d: 0.9980 @ 20°/20°, vap. press: <0.01 mm @ 20°.

SYN: 1,4,7,10,13-PENTAAZATRIDECANE

#### **TOXICITY DATA:**

3-2

#### **CODEN:**

skn-rbt 495 mg open SEV

UCDS\*\* 3/20/73

eye-rbt 5 mg MOD

UCDS\*\* 3/20/73

ori-rat LD50: 3990 mg/kg

UCDS\*\* 3/20/73

ivn-mus LD50: 320 mg/kg

CSLNX\* NX#03522

skn-rbt LD50: 660 mg/kg

JIHTAB 31,60,49

### **TETRAETHYL LEAD 2525**

Aquatic Toxicity Rating: TLM96: 1000-100 ppm  
WQCHM\* 4,-,74. Reported in EPA TSCA Inventory, 1980.

**THR:** HIGH ivn; MOD orl, skn. SEV skn; MOD eye irr.

**Fire Hazard:** Slight, when exposed to heat or flame.

**Disaster Hazard:** Dangerous; when heated to decomp, emits tox fumes of  $\text{NO}_x$ ; can react with oxidizing materials.

**To Fight Fire:**  $\text{CO}_2$ , dry chemical.

### **TETRAETHYL GERMANIUM**

CAS RN: 597637 NIOSH #: LY 5290000  
mf:  $\text{C}_8\text{H}_{20}\text{Ge}$ ; mw: 188.87

Colorless oil, decomp by water. d: 1.198 @ 0°, mp: -90°, bp: 163°.

SYN: TETRAETHYL GERMANIUM

#### **TOXICITY DATA:**

2

#### **CODEN:**

ori-rat LDLo: 700 mg/kg

CHDDAT 262,1302,66

ipr-rat LDLo: 590 mg/kg

CHDDAT 262,1302,66

ori-mus LDLo: 2870 mg/kg

CHDDAT 262,1302,66

Reported in EPA TSCA Inventory, 1980.

**THR:** MOD via oral and ipr routes. Animal exper show stimulation of blood formation. See also germanium compounds.

**Disaster Hazard:** When heated to decomp it emits acrid smoke and fumes.

### **TETRAETHYL LEAD**

CAS RN: 78002 NIOSH #: TP 4550000  
mf:  $\text{C}_8\text{H}_{20}\text{Pb}$ ; mw: 323.47

Colorless, oily liquid, pleasant characteristic odor. mp: 125°-150°, bp: 198°-202° with decomp, d: 1.659 @ 18°, vap. press: 1 mm @ 38.4°, flash p: 200°F. Including flash point for export shipment by water (FERREAC 41,15972,76)

#### **SYNS:**

CZTEROETHLEK OLOWIU (POL-)

TETRAETHYLPLUMBANE

ISH)

NCI-C54988

#### **TOXICITY DATA:**

3

#### **CODEN:**

ori-rat TDLo: 11 mg/kg (6-16D preg)

FCTXAV 13,629,75

ori-rat TDLo: 7500 ug/kg (12-14D preg)

TXAPA9 21,265,72

ori-mus TDLo: 11 mg/kg (5-15D preg)

FCTXAV 13,629,75

scu-mus TDLo: 100 mg/kg/21D-

EXPEAM 24,580,68

I: CAR

unk-man LDLo: 1470 ug/kg

85DCAI 2,73,70

ori-rat LDLo: 17 mg/kg

AEHLAU 8,277,64

ihl-rat LC50: 850 mg/m3/60M

BJIMAG 18,277,61

ipr-rat LDLo: 10 mg/kg

JPETAB 38,161,30

ivn-rat LDLo: 31 mg/kg

BJIMAG 18,277,61

par-rat LD50: 15 mg/kg

AOHYA3 3,226,61

ihl-mus LCLo: 650 mg/m3/7H

SAIGBL 15,3,73

scu-mus LDLo: 86 mg/kg

EXPEAM 24,580,68

skn-dog LDLo: 547 mg/kg

SAIGBL 15,3,73

ori-rbt LDLo: 30 mg/kg

SAIGBL 15,3,73

skn-rbt LDLo: 830 mg/kg

SAIGBL 15,3,73

scu-rbt LDLo:32 mg/kg  
 ivn-rbt LDLo:23 mg/kg  
 skn-gpg LDLo:995 mg/kg

EQSSDX 1,1,75  
 JPETAB 38,161,30  
 SAIGBL 15,3,73

Aquatic Toxicity Rating: TLM96:under 1 ppm  
 WQCHM\* 3,-,74. Carcinogenic Determination: Animal Suspected IARC\*\* 23,325,80. Carcinogenic Determination: Indefinite IARC\*\* 2,150,73.

TLV: Air: 0.1 mg/m<sup>3</sup> (skin) DTLVS\* 4,392,80. *Toxicology Review*: JORCAI 76(3),265,74; JAMAAP 105, 578,35; FCTXAV 9,105,71; AJMEAZ 38,409,65; 85DHAX Pb,255,72. OSHA Standard: Air: TWA 75 ug(Pb)/m<sup>3</sup> (skin) (SCP-W) FEREAC 39,23540,74. DOT: Poison B, Label: Poison FEREAC 41,57018,76. "NIOSH Manual of Analytical Methods" VOL 4 S383\*. Reported in EPA TSCA Inventory, 1980.

THR: An exper CARC. A poison. HIGH unk, orl, ipr, ivn, par, scu, skn; MOD ihl, skn. See also lead compounds. This material is a powerful poison and a solvent for fatty materials. It has some solvent action on rubber as well. The fact that it is a lipid solvent makes it an industrial hazard, because it can cause intoxication not only by inhal but also by absorption through the skin. Decomp when exposed to sunlight or allowed to evaporate; forms triethyl lead, which is also a poisonous compound, as one of its decomp products. This liquid lead compound, when handled in undiluted form or concentrated solution as when it is manufactured or in the plants where it is mixed with gasoline, may cause lead exposure intoxication by coming in contact with the skin. Therefore, any open receptacle which contains these liquids in high conc or any container, article of clothing, or any other object which is not kept clean, particularly in contact with this material, may subject personnel to serious lead exposure. A common air contaminant.

Fire Hazard: Mod, when exposed to heat, flame or oxidizers.

Disaster Hazard: Dangerous; see lead; can react vigorously with oxidizing materials.

To Fight Fire: Dry chemical, CO<sub>2</sub>, mist, foam.

## TETRAETHYLPYROPHOSPHATE

CAS RN: 107493 NIOSH #: UX 6825000  
 mf: C<sub>8</sub>H<sub>20</sub>O<sub>7</sub>P<sub>2</sub>; mw: 290.22

Water white to amber hygroscopic liquid. d: 1.20.

### SYNS:

BIS-O,O-DIETHYLPHOSPHORIC  
 ANHYDRIDE  
 ENT 18,771  
 PYROPHOSPHATE DE TETRA-  
 ETHYLE (FRENCH)  
 O,O,O,O-TETRAAETHYL-DIPHOS-  
 PHAT, BIS(O,O-DIAETHYLPHOS-  
 PHORSAEURE-ANHYDRID (GER-  
 MAN)

O,O,O,O-TETRAETHYL-DIFOSFAAT  
 (DUTCH)  
 O,O,O,O-TETRAETIL-PIROFOS-  
 FATO (ITALIAN)  
 TETRAETHYL PYROFOSFAAT  
 (BELGIAN)  
 TETRAETHYL PYROPHOSPHATE,  
 LIQUID (DOT)  
 TEPP

### TOXICITY DATA: 3

orl-hmn LDLo:2 mg/kg  
 orl-hmn TDLo:432 ug/kg:CNS  
 ims-hmn LDLo:400 ug/kg  
 par-hmn TDLo:100 ug/kg:CNS

### CODEN:

CMEP\*\* -,1,56  
 CMEP\*\* -,1,56  
 CMEP\*\* -,1,56  
 CMEP\*\* -,1,56

orl-rat LD50:500 ug/kg  
 skn-rat LD50:2400 ug/kg  
 ipr-rat LD50:650 ug/kg  
 ims-rat LD50:1800 ug/kg  
 unk-rat LD50:1120 ug/kg  
 orl-mus LD50:7 mg/kg  
 ipr-mus LD50:850 ug/kg  
 scu-mus LD50:1 mg/kg  
 ivn-mus LD50:200 ug/kg  
 skn-rbt LD50:5 mg/kg  
 ocu-rbt LD50:1 mg/kg  
 unk-rbt LDLo:300 ug/kg  
 orl-dck LD50:3560 ug/kg  
 skn-dck LD50:64 mg/kg  
 orl-bwd LD50:1 mg/kg

PHJOAV 185,361,60  
 TXAPA9 14,515,69  
 FEPRA7 6,353,47  
 JCINAO 37,350,58  
 30ZDA9 -,379,71  
 TXAPA9 21,153,72  
 AMIHBC 6,9,52  
 GUHAZ 6,481,73  
 BJPCAL 9,299,54  
 12VXA5 8,1025,68  
 AJOPAA 53,512,62  
 BJPCAL 8,466,53  
 TXAPA9 47,451,79  
 TXAPA9 47,451,79  
 TXAPA9 21,315,72

TLV: Air: 0.05 ppm (skin) DTLVS\* 4,388,80. *Toxicology Review*: 31ZNAA 3(13),289,75; AQMOAC #73-19,1973; RREVAH 46,1,73; IRXPAT 3,219,64. OSHA Standard: Air: TWA 50 ug/m<sup>3</sup> (skin) (SCP-U) FEREAC 39,23540,74. DOT: Poison B, Label: Poison FEREAC 41,57018,76.

THR: A hmn CNS. HIGH hmn orl, ims. HIGH orl, skin, ipr, ims, unk, scu, ocu. VERY HIGH via all routes. The action is similar to that of parathion. Briefly, the action results in an irreversible inhibition of the cholinesterase molecules and the consequent accumulation of large amounts of acetylcholine. See also parathion.

Chronic dose: Exposure to any organic phosphorus insecticide lowers the cholinesterase level and, until that enzyme has been completely regenerated, the exposed organism remains susceptible to relatively small doses of tetraethyl pyrophosphate. In other words, small doses at frequent intervals are largely additive. See parathion for further details.

Signs and symptoms of poisoning: Findings are similar to those for parathion.

Treatment of poisoning: Same as for parathion.

Disaster Hazard: When heated to decomp it emits tox fumes of PO<sub>x</sub>. See parathion.

## TETRAETHYLPYROPHOSPHATE and COMPRESSED GAS MIXTURES

NIOSH #: UX 7000000

SYN: TETRAETHYL PYROPHOSPHATE AND COMPRESSED GAS MIXTURE (DOT)

### TOXICITY DATA: 3

DOT: Poison A, Label: Poison Gas FEREAC 41, 57018,76.

THR: Poison gas. See also tetraethyl pyrophosphate.

Disaster Hazard: When heated to decomp it emits tox fumes of PO<sub>x</sub>.

## TETRAETHYLSTANNANE

CAS RN: 597648 NIOSH #: WH 8625000  
 mf: C<sub>8</sub>H<sub>20</sub>Sn; mw: 234.97

Colorless liquid. d: 1.187 @ 23°, mp: -112°, bp: 181°. Insol in water; sol in organic solvents.

SYN: TETRAETHYL TIN



Inspector: Bruce Venner      Date: 9/9/82  
Location: Ferdinand Scaccetti  
N.J.D.O.T. Maintenance yard - Flemington  
St: Rt. 31      Property owner: State of New Jersey  
Town: Raritan Twp.      N.J.D.O.T.  
County: Hunderton County      1035 Parkway Ave.  
Lot: 2      Block: 29      Trenton, N.J.

## Origin of Complaint:

Complaint: possible hazardous waste site.

Findings: At 1035 hrs. Bruce Venner and Ferdinand Scaccetti arrived at the N.J.D.O.T. Maintenance Yard in Flemington. Upon identifying ourselves to Mr. Earl Coleman (yard foreman) we were informed that no information could be given to N.J.D.E.P. personnel by Region I maintenance employees. Citing a memo dated 1/19/82 from Mr. Worth A. Cunningham, Regional Maintenance Engineer, Mr. Coleman informed us that permission to inspect and/or investigate the facility had to be granted through Mr. Cunningham's office. Mr. Cunningham was contacted by phone and permission was granted to conduct this investigation.

According to Mr. Coleman the Flemington maintenance yard property was formerly owned by Esso (Exxon Corp.). The property was purchased by the State (N.J.D.O.T.) in 1960. At this time we spoke to Mr. Edward Kerr, maintenance operator and an employee of the N.J.D.O.T. since 1957. Mr. Kerr stated that during the conversion of the Exxon property to the current D.O.T. facility, maintenance employees encountered leaded gasoline contaminated earth and shale. Fearing lead related health problems all clothing, tools, gloves, boots and equipment were buried at a site on the west border of the property (see map). This burial site is designated as a "LEAD DUMP" on N.J.D.O.T. site plans for this property. Mr. Coleman felt that this investigation was probably initiated by someone noting the "LEAD DUMP" on the site plans.

As of this writing, no evidence of N.J.D.E.P.-DWM violations were noted during an evaluation of the facility's daily operations.

1130 hrs. - We left the site.

ekd/

c: George King

ATTACHMENT K

# MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO File #82-08-19-011

FROM Ferdinand Scaccetti/Bruce Venner<sup>ew</sup>

DATE 9/9/82

SUBJECT Recommendations

Since this investigation was probably initiated due to the expansion of US Rt. 31, it is our recommendation that any further investigative work be conducted by the Dept. of Transportation.

An investigation of this facility was conducted by Wayne Howitz, DWM and Bill Althoff, DWR, on 4/18/80. As a result of this investigation, potable water wells in the area were sampled and analyzed for lead content. Lead levels in these wells were found to be normal.

cc: F. Howard Zahn, Chief, Bureau of Envl. Analysis  
NJ Dept. of Transportation  
1035 Parkway Ave.  
Trenton, NJ 08625  
Attn: J. Lee Hendricks

K<sub>2</sub>

possible burial  
Area for team  
contaminated  
material

A hand-drawn site plan of a property. At the top, a horizontal line is labeled "Route 31". Below this line, a rectangular building is labeled "TRAILER". To the right of the trailer is a large rectangular building labeled "GARAGE". Above the garage, the text "OFF-CE" is written. To the left of the trailer, a circular feature is labeled "Pond". Below the pond, a rectangular building is divided into three sections, labeled "SALT", "STORAGE", and "SALT". To the left of the salt storage building, the text "300 Gallons Diesel Fuel" is written. At the bottom left, a circular feature is labeled "Pond". The entire plan is enclosed in a rectangular border.

 $K_3$

## INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	82-08-19-011	HOT LINE	<input type="checkbox"/>	INDEX	<input type="checkbox"/>
DATE	08-19-82	TIME (Military)	1600	D.W.M. ID NO.	144

## INCIDENT REPORTED BY:

NAME	LEE HENDRICKS - DOT	PHONE	609 452-95	CODE	5
AFFILIATION	MARY HAYMMAN	(201) 645-3336	EX 27		
STREET	NEWARK HND				
CITY	THIS WOMAN CAUSED DOT	STATE		ZIP CODE	

## INCIDENT LOCATION:

NAME	OFF OF #31	PHONE	
STREET	Block 37 LOT 11	UTM VERT	
CITY	PARITON TWP HUNTERTON COUNTY	STATE	
		ZIP CODE	

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE: ☐ Confirmed ☐ Alleged ☐ More Than 1 Source

COMPANY NAME	NJDOT	PHONE	
CONTACT		TITLE	
STREET		DEP COMPANY NO.	
CITY		STATE	
	COUNTY	ZIP CODE	

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: ☐ Confirmed ☐ Alleged ☐ More Than 2 Substances

1.	AMOUNT SPILLED	UNITS	A/P/E	SUBSTANCE NO.
2.	AMOUNT SPILLED	UNITS	A/P/E	SUBSTANCE NO.

DATE OF INCIDENT	TIME (Military)	TEMP.	WEATHER	WIND (Dir. & Vel.)
SPILL ORIGIN	OLD TANK FARM - BEFORE DOT GOT IT			CODE
CAUSE	COMPLETELY EXCAVATED AND REMOVED MATERIAL BACK IN THE 1960			CODE
WATER BODY AFFECTED				CODE
ASSOCIATED FIRE AND/OR HAZARDS	MR BRITON TOLD THIS.			

## INCIDENT REFERRED TO:

AGENCY	5	PHONE	
CONTACT		AGENCY CODE	

PRIMARY D.W.M. INVESTIGATOR	VENNER	FOLLOWUP	
NO FURTHER ACTION		DATE	

K4



## POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION

REGION

2

SITE NUMBER

NJ000010246

NOTE: The initial identification of a potential site or incident should not be interpreted as a finding of illegal activity or confirmation that an actual health or environmental threat exists. All identified sites will be assessed under the EPA's Hazardous Waste Site Enforcement and Response System to determine if a hazardous waste problem actually exists.

A. SITE NAME NJDOT		B. STREET (or other identifier) RTE 31	
C. CITY FLEMINGTON	D. STATE NJ	E. ZIP CODE	F. COUNTY NAME HUNTERDON
G. OWNER/OPERATOR (if known) 1. NAME		2. TELEPHONE NUMBER	
H. TYPE OF OWNERSHIP (if known) <input type="checkbox"/> 1. FEDERAL <input type="checkbox"/> 2. STATE <input type="checkbox"/> 3. COUNTY <input type="checkbox"/> 4. MUNICIPAL <input type="checkbox"/> 5. PRIVATE <input type="checkbox"/> 6. UNKNOWN			
I. SITE DESCRIPTION			
J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.) STATE LIST		K. DATE IDENTIFIED (mo., day, & yr.) 5/8/81	
L. SUMMARY OF POTENTIAL OR KNOWN PROBLEM			
M. PREPARER INFORMATION			
1. NAME KARL MANGEELS		2. TELEPHONE NUMBER 264-1573	3. DATE (mo., day, & yr.) 5/8/81